Supreme Court, U.S.
FILED
071126 FEB 27 2008
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No.

IN THE

Supreme Court of the United States

CLARENCE ABRAHAM, et al.,
Petitioners,

v.

UNION PACIFIC RAILROAD COMPANY,
Respondent.

ON PETITION FOR WRIT OF CERTIORARI
TO THE FOURTEENTH COURT OF APPEALS
HOUSTON, TEXAS

PETITION FOR WRIT OF CERTIORARI

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QUESTIONS PRESENTED

1. What is the proper standard for admissibility of expert witness testimony in a Federal Employers' Liability Act ("FELA") case (in light of the Third Circuit's observation that "the standard of causation under FELA can significantly influence a determination of the admissibility of the expert's testimony," *Hines v. Consolidated Rail Corp.*, 926 F.2d 262, 269 (3rd Cir. 1991)).

2. In a FELA case, can a state court – as it did in this case – impose a different and higher standard for admissibility of expert witness testimony than the admissibility standard used by Federal courts in FELA cases (thus allowing state courts to effectively narrow the employer's liability in a FELA case)?

PARTIES TO THE PROCEEDING AND RULE 29.6 STATEMENT

Petitioners are Clarence Abraham, et al. All of the Petitioners' are individuals and their full names are listed in Appendix A to this Petition. There are no corporations involved in this proceeding.

Respondent is Union Pacific Railroad Company.

TABLE OF CONTENTS

Page

QUESTION PRESENTED i

PARTIES TO THE PROCEEDING AND RULE 29.6 STATEMENT ii

LIST OF APPENDICES v

TABLE OF AUTHORITIES vi

OPINIONS BELOW 1

JURISDICTION 1

CONSTITUTIONAL AND STATUTORY PROVISIONS INVOLVED 2

FACTUAL STATEMENT 4

REASONS FOR GRANTING WRIT 15

TO ENSURE THAT COURTS DO NOT IMPROPERLY NARROW THE EMPLOYER'S LIABILITY IN FELA CASES (AS WAS DONE IN THIS CASE), THE COURT MUST ESTABLISH THE PROPER STANDARD FOR ADMISSIBILITY FOR EXPERT WITNESS TESTIMONY IN FELA CASES (WHETHER FILED IN STATE OR FEDERAL COURT) 15

Page

A. By Imposing Its Own Restrictive Standard for Admissibility of Expert Witness Testimony in Toxic Tort Cases, Texas is Depriving Plaintiffs of Their Rights Under FELA 15

B. Given FELA's Recovery Facilitating Thrust and Its Near Guarantee of a Jury Trial For FELA Plaintiffs on the Issue of Causation, This Court Should Set a Uniform Expert Witness Admissibility Standard for FELA Cases by Adopting the Weight-of-the-Evidence Methodology 18

1. Plaintiffs are Entitled to a Jury Trial Under the Applicable FELA Standard of Causation 18

2. The Weight-of-the-Evidence Methodology is Appropriate for FELA Cases 24

3. Plaintiffs' Expert Performed a Reliable Weight-of-the-Evidence Analysis Sufficient to Allow the Issue of Medical Causation to be Decided by the Jury 26

CONCLUSION 39

CERTIFICATE OF COMPLIANCE 40

LIST OF APPENDICES

APPENDIX A
List of Petitioners A-1

APPENDIX B
Fourteenth Court of Appeals
Opinion, Filed June 28, 2007 ..... B-1

APPENDIX C
Fourteenth Court of Appeals
Overruling of Motion for En Banc
Rehearing, Filed June 28, 2007 ..... C-1

APPENDIX D
Supreme Court of Texas Order
Denying Petition for Review,
Filed November 30, 2007 ..... D-1

APPENDIX E
45 U.S.C.A. § 51 ..... E-1

APPENDIX F
District Court if Harris County, Texas
Order Granting Motion for Summary
Judgment, Dated April 7, 2006 ..... F-1

TABLE OF AUTHORITIES

Page

Federal Cases

Aparicio v. Norfolk & D.Ry Co.,
84 F.3d 803 (6th Cir. 1996) 20

Atlantic & Gulf Stevedors, Inc. v. Ellerman Lines, 369 U.S. 355 (1962) 21

Bednar v. Bassett Furniture Mfg. Co.,
147 F.3d 737 (8th Cir. 1998) 17

Boeing Co. v. Shipman,
411 F.2d 365 (5th Cir. 1969) 21

Bonner v. ISP Technologies, Inc.,
259 F.3d 924 (8th Cir. 2001) 17

Curtis v. M&S Petroleum, Inc.,
174 F.3d 661 (5th Cir. 1999) 37

Daubert v. Merrell Dow Pharmaceuticals, Inc.,
509 U.S. 579 (1993) 10, 16, 23, 25, 37

Derienzo v. Metro Transportation Authority,
404 F. Supp 555 (S.D.N.Y. 2005) 24

Dice v. Akron Railroad Co.,
342 U.S. 359 (1952) 21

General Electric Co. v. Joiner,
522 U.S. 136 (1997) 24

Page

Green v. River Terminal Ry Co.,
763 F.2d 805 (6th Cir. 1985) 20

Heller v. Shaw Industries,
167 F.3d 146 (3rd Cir. 1999) 14

Hines v. Consolidated Rail Corp.,
926 F.2d 262 (3rd Cir. 1991) 19, 21, 22

In Re Conrail Toxic Tort FELA Litigation,
1998 U.S. Dist. Lexis 12037,
1998 Westlaw 465897
(W.D. Penn. August 4, 1998) 23-24

Magistrini v. One Hour Dry Cleaning,
180 F.Supp.2d 584 (U.S.D.C. N.J. 2002) .. 25

Norfolk & Western Railway Company v. Ayers,
538 U.S. 135 (2003) 2, 3

Pehowic vs Erie Lackawanna RR Co.,
430 F.2d 697 (3rd Cir 1970) 18

Richards v. Consolidated Rail Corporation,
330 F.3d 428 (6th Cir. 2003) 19

Rogers v. Missouri Pacific Railroad Co.,
352 U.S. 500 (1957) 19

Savage v. Union Pacific Railroad Company,
67 F.Supp.2d 1021 (E.Dist. Ark. 1999) ... 23

Page

Tufarielo v. Long Island Railroad Company,
458 F.3d 80 (2d Dist. New York 2006) 3

Westberry v. GGAB,
178 F.3d 257 (4th Cir. 1999) 16

Westberry v. Gislaved,
178 F.3d 257 (4th Cir. 1999) 14

State Cases

Abraham v. Union Pacific Railroad Company,
233 S.W.3d 13 (2007) 2, 10, 11, 14

Austin v. Kerr McGee Refining Corp.,
25 S.W.3d 280 (Tex.App. 2000) 10

Dutton v. Southern Pacific Transportation Company, 56 S.W.2d 782 (1978) 22-23

Kansas City Southern Railway Corp. v. Stokes,
20 S.W.3d 45 (2000) 4, 19

Frias vs. Atl. Richfield Co.,
104 S.W.3d 925 (Tex-App Houston 2003) . 37

Merrell Dow Pharms. v. Havner,
953 S.W.2d 706 (Tex. 1997) .. 2, 8, 11, 15, 19

Missouri Pacific Railroad Co. v. Navarro,
90 S.W.3rd 747 (2002) 22, 26

Page

Federal Statutes

28 U.S.C. § 1257 1

35 STAT. 65 1
Federal Employers' Liability Act (FELA)

45 U.S.C. §§ 51-60 1

Federal Rules

Federal Rule of Evidence
Rule702 ..... 36, 37

OPINIONS BELOW

The opinion of the Fourteenth Court of Appeal, 295th District Court of Harris County, Texas, is reported at 233 S.W. 3rd 13, dated June 28, 2007. (Appendix B). Petitioners' Motion for En Banc Rehearing was denied/overruled on August 23, 2007. (Appendix C). The Texas Supreme Court's order denying review is unreported, No. 07-0810 (dated November 30, 2007). (Appendix D).

JURISDICTION

The Texas Court of Appeals decision in this case was issued June 28, 2007. Petitioners' motion for En Banc Rehearing was denied/overruled August 23, 2007. The Texas Supreme Court denied review of the case on November 30, 2007.

> "Final judgments . . . rendered by the highest court of a State . . . may be reviewed by the Supreme Court by writ of certiorari . . . where any . . . right [or] privilege . . . is specially set up or claimed under the . . . statutes of . . . the United States." 28 U.S.C. § 1257.

Where (as here) the state appellate court's judgment wrongfully deprives the parties – 300 railroad worker plaintiffs/petitioners – of their federal statutory right under FELA to a jury trial on the issue of medical causation by applying the wrong standard of admissibility to plaintiffs' medical causation evidence – an admissibility standard

which directly conflicts with the FELA – the Court has jurisdiction to grant certiorari and hear and decide the case.

CONSTITUTIONAL AND STATUTORY PROVISIONS INVOLVED

The Federal Employers' Liability Act (FELA), 35 STAT. 65, as amended, 45 U.S.C. §§ 51-60, makes common carrier railroads liable in damages to employees who suffer work-related injuries caused "in whole or in part" by the railroad's negligence. "Enacted in 1908, Congress designed the FELA to 'shift part of the 'human overhead' of doing business from employees to their employers'. *Gottshal,* 512 U.S. at 542. . . ." *Norfolk & Western Railway Company v. Ayers*, 538 U.S. 135, 145 (2003). "Reining in employer liability [as was done here by raising the bar for the admissibility of expert witness testimony in FELA cases] . . . is inconsistent with the Act's overall recovery facilitating thrust . . . [and] runs counter to a century of FELA jurisprudence." (Text of FELA statute set out at Appendix E).

In this FELA case, the Texas Court of Appeal measured the reliability and legal sufficiency of plaintiffs' expert testimony under the exceedingly strict expert witness testimony admissibility standard set forth by the Texas Supreme Court in *Merrell Dow Pharms. v. Havner*, 953 S.W.2d 706 (Tex. 1997), and its progeny. *See, Abraham v. Union Pacific Railroad Company*, 233 S.W.3d 13, 17, 19-20 (2007). (Appendix B-3, B-8, B-10) *Havner* requires, for example, that the medical expert rule out with

reasonable certainty all other potential causes of plaintiff's illness before causation can be reliability established – a requirement which is directly contrary to the FELA rule that liability attaches even where defendant's conduct was only partially responsible (along with other causes) for the claimed illness.

As this Court stated in *Norfolk*, *supra*, 538 U.S. at 161-162,

> "[i]n *Rogers* [*v. Missouri Pacific Railroad Company*, 352 U.S. 500 (1957)], we described as 'irrelevant' the question 'whether the immediate reason' for the employee's injury was . . . 'some cause not identified from the evidence.' . . . 'The inquiry in these cases today rarely presents more than the single question whether negligence of the employer played *any part, however small*, in the injury or death which is the subject of the suit.'" (Emphasis added).

FELA, of course, preempts Texas law: "[T]he preemption doctrine flows from the Constitution's Supremacy Clause, United States Constitution, Article VI, Clause 2, which 'invalidates state laws that interfere with, or are contrary to, federal law.'" *Tufarielo v. Long Island Railroad Company*, 458 F.3d 80, 86 (2d Dist. New York 2006). Texas courts have expressly acknowledged that "no state procedure or rule can interfere with or diminish the rights under

FELA." *Kansas City Southern Railway Corp. v. Stokes*, 20 S.W.3d 45, 48 (2000), citing *Dutton v. Southern Pacific Transportation Company*, 576 S.W. 2d at 783-784 ("substantive rights governed by the FELA cannot be interfered with, lessened or destroyed by a state rule of practice or procedure.").

FACTUAL STATEMENT

This is a Federal Employers' Liability Act (FELA) toxic tort personal injury action for damages brought by 295 Union Pacific Railroad Company workers who were exposed to toxic creosote in the workplace (principally at the Railroad's creosote wood treatment plant in Houston, Texas). It is undisputed that creosote has been declared a *probable human carcinogen* by the International Agency for Research on Cancer (IARC), the United States Department of Health, and, the United States Environmental Protection Agency. (CR 477, 481). Creosote also causes skin and breathing problems. (CR 1181).

After many years of litigation, the Trial Court set for trial the case of one test plaintiff, Mr. Leslie Duncan, who, after working for defendant Railroad at its creosote wood treatment plant in Houston, Texas, for fifteen years from 1969 to 1985, died of throat cancer in 2002 at age 78. On the first day of trial the Trial Court heard argument on defendant's Motion for Summary Judgment made on the grounds that plaintiff Leslie Duncan presented insufficient medical causation evidence connecting his cancer to his creosote exposure at defendant's wood treatment plant. (RT and CR Motion:84-175, Opposition:212-

667). Defendant later expanded its medical causation motion for summary judgment to include all plaintiffs. (CR Motion:691-835, Opposition:1535-1582).

In Opposition to the summary judgment motions, plaintiffs proffered expert witness testimony – in the form of verified affidavits – from a qualified medical doctor with thirty years experience in occupational and environmental toxicology, who opined that plaintiffs' cancers and other claimed illnesses were caused, *at least in part*, by their chronic exposure to creosote in the workplace. (CR 648-667, 836-1395). The expert's opinions were based upon **exposure evidence**, which included interrogatory testimony from each plaintiff concerning their job duties and creosote exposure experience while working for defendant Railroad, as well as deposition testimony from fellow workers and witnesses concerning their observations of regular exposure to creosote while working at the plant. (CR 836, 844-845, 648, 661, 564-565, and, 1402-1441). The exposure evidence also included an exposure study commissioned by the United States Environmental Protection Agency, where the National Creosote Council studied four representative creosote wood treatment plants and published its findings in a 2001 report entitled, "*Final Report: Assessment of Potential Creosote Inhalation and Dermal Exposure Associated with Pressure-Treatment of Wood With Creosote*" (CR 516-536). The Creosote Council report calculated and reported the typical worker exposure levels to creosote vapors and liquid at treatment plants (broken down by job categories at the wood treatment facilities). Plaintiffs' medical causation expert relied

upon this report in forming his causation opinions. (CR 845).

Plaintiffs' expert also relied upon plaintiffs' **medical histories**, including family history of disease, and social history such as smoking and drinking. (CR 844-845). Lastly, plaintiff's expert relied upon a large body of **medical and scientific evidence** demonstrating that exposure to creosote can cause certain medical problems, including cancer, breathing problems, and skin disease. (CR 846-864). Defendant's own internal documents, for example, admit that workers exposed to creosote are at risk of developing cancer. (*See,* defendant's March 16, 1981, internal report which states that the creosote used by the railroad at its Houston wood treatment facility contained cancer-causing compounds, which report concluded that "[the Company] is vulnerable to litigation concerning alleged adverse health effects . . . to employees . . . due to uncontrolled emissions . . . of suspected carcinogenic substances." (CR 903-904); *see also,* report from the Railroad's Certified Industrial Hygienist stating that "[c]reosote is a distillate fraction from coal tar . . . [and] [i]t is known that they contain some of the . . . compounds of occupational concern for latent health defects, such as skin, lung, or bladder carcinomas. . . . Creosote is commonly handled and controlled occupationally similar to coal tar since the health effects as . . . potential carcinogen with routine, prolonged contact or inhalation are the same. . . . [I]t is prudent to avoid skin contact and inhalation of volatiles whenever possible." (CR 907-909).

In their Material Safety Data Sheets, the manufacturers of creosote state that "[p]rolonged exposure can lead to . . . lung disease (bronchitis) or asthma," (CR 1181), and, "Chronic Overexposure . . . May Cause Cancer." (CR 1188).

After commissioning the exposure study by the Creosote Council for Wood Treatment Plants, the US EPA issued a report stating that "creosote acts most effectively as a [cancer] promoter but also functions as a complete carcinogen," and that "cancer risks for all post-application occupational scenarios exceed the level of concern. . . . [T]he epidemiological studies on the effects of creosote exposure [show] increased risks for the development of a number of diseases . . . [including] skin cancer and non-alignant skin disorders, bladder cancer, lung cancer, and nonmalignant respiratory disease." (CR 1147). In its publication *Criteria for Recommended Standard,* the United States Department of Health, National Institute of Safety & Health (NIOSH), states that "from the epidemiological and experimental toxicological evidence on coal tar, coal tar pitch and creosote, NIOSH has concluded that they are carcinogenic and can increase the risk of lung and skin cancer in workers." (CR 974-975). In a 1992 epidemiological health study of creosote wood treatment workers (which was published in a peer review journal, Scandinavian Journal of Worker and Environmental Health), Dr. Karlehagen and his colleagues studied 922 creosote wood treatment workers at thirteen coal tar creosote wood treatment plants in Sweden and Norway. The authors concluded that "[a] doubled risk for skin cancer was

. . . observed and this increase could probably be attributed to the combination of exposure to creosote and sunlight." (CR 1213-1216). Some of the plaintiffs in this case have skin cancer. (*See*, CR 876-901).

In its summary judgment motions, defendant argued that under *Havner*, *supra*, 953 S.W. 2d 706, and its progeny:

> "[Plaintiff's expert] Dahlgren fails to negate other plausible factors and causes of plaintiff Duncan's injuries. Dahlgern's specific causation opinions do not adequately exclude confounding factors as required by *Havner*. The plaintiffs must negate, with proof rising to reasonable certainty, all other plausible causes of their injuries . . . *Havner* . . . at 718. *** [U]nder *Havner*, if there are other plausible causes of the condition, they must be negated. In other words, Dahlgren must exclude those causes with reasonable certainty. *Havner* at 720." (CR 103, 728).

Plaintiffs, of course, argued that this *Havner* requirement directly conflicts with the FELA rule allowing for liability where defendant's negligence was only a contributing cause of the injury, and argued that *Havner* must not be applied in a FELA case. (CR 247, 1543, 1563).

At the hearing of defendant's summary judgment motion, defendant again argued *Havner*: "If there are

other plausible causes of the injury or condition that could be negated, the plaintiff must offer evidence excluding those causes with reasonable certainty." (RT 71:21-25, 72:1-17). The Trial Court's response to this argument was as follows:

> "That's where we have the huge distinction between the two of you [plaintiffs' and defense counsel]. For example, lung cancer. It is your opinion [plaintiffs] that it is enough for your doctor say the chemicals, – the creosote was a cause of his lung cancer and he does not have to say the smoking was not the cause." (RT 74:9-25, 75:1-6).

In connection with its summary judgment motions, defendant also argued that, under *Havner* (and its progeny), plaintiffs "must prove that they were exposed to the same [quantitative] level or greater of the same substance as those studied. . . . Dahlgren's unreliable [unquantified] exposure data violates *Havner* and its progeny. . . . There is no evidence that the plaintiff's had similar exposures to those who were studied. *** Dahlgren's causation opinions are legally insufficient because he has no evidence of exposure levels or dose." (CR 100, 706). At the hearing on the initial motion for summary judgment, the Trial Court stated that plaintiffs cannot meet their burden of proof without presenting *specific levels of exposure* in both the studies relied upon and for each plaintiff's actual exposure. (RT 59).

In the end, the Trial Court granted defendant's motions for summary judgment. (Appendix F and CR 1583). In the Appellate Court opinion affirming the Trial Court's dismissal judgment, the Appellate Court stated, "Appellants contend that the trial court improperly applied *Havner* to require a higher level of specific scientific proof than is required in FELA cases.... [T]he accepted distinction between burden of proof and admissibility of evidence defeats appellants' argument that we are improperly applying *Havner*. *** Therefore, if the expert testimony is unreliable under *Havner* . . ., it is no evidence, 'not even a feather's weight.'" *Abraham, supra*, 233 S.W. 3d at 19-20. (Appendix B-8, B-9, B-10) The *Havner* admis-sibility requirements are incon-sistent with both the FELA and the federal admissibility standard set forth in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).

The Texas Appellate Court held plaintiffs to an improperly high standard of proof in terms of exposure evidence sufficient to support a medical doctor's finding of causation. The Appellate Court stated that "the plaintiff must demonstrate the levels of exposure hazardous to human beings generally as well as plaintiff's actual level of exposure. *Austin v. Kerr McGee Refining Corp.*, 25 S.W.3d 280 (Tex.App. 2000)." *Abraham*, 233 S.W. 2d at 21. (Appendix B-12) The Appellate Court stated that "appellants have not produced reliable evidence that they were exposed to those levels of creosote [found to be hazardous by the EPA in its exposure study of several typical creosote wood treatment plants].... [A]ppellants produced no evidence from which the trial court could determine

whether appellants were exposed to similar levels of creosote that led the EPA to find an increased risk of disease." *Id.* at 22. (Appendix B-16) (As discussed below, plaintiff did produce evidence of the similarity between plaintiffs' creosote exposure and the creosote exposure by those studied by the EPA.)

Under the *Havner* standard of admissibility, the Appellate Court unreasonably rejected as unreliable Dr. Dahlgren's undisputed reliance upon plaintiffs' interrogatory responses and depositions describing their job duties and their regular daily exposure to creosote on the skin and by breathing the creosote vapors while working with the freshly treated wood ties. It is undisputed that Dr. Dahlgren relied upon plaintiffs' interrogatories and the depositions describing their job duties and creosote exposure. (CR 836, 844-845, 648, 661, 564-565, and, 1402-1441). From this evidence, for example, Dr. Dahlgren prepared an employment and exposure summary report for plaintiff Leslie Duncan:

> "Leslie Duncan - Employment and Exposure Summary
>
> Worked for Southern Pacific from 1969-89 at 4910 Liberty Road Creosote Facility, unloading and stacking hot newly treated ties, cleaning the treatment cylinders, loading treated ties on the flat bed train cars; operated a forklift; worked eight hours, five days a week with occasional overtime; . . . 1969 to 1984 loading freshly treated railroad

> crossties on trains at creosote wood treatment plant near the treatment cylinders; spent majority of his time at the Houston Creosote Plant; regularly breathed creosote fumes and got creosote on his body performing his job at the plant.
>
> * * *
>
> According to deposition of Mary Louis Duncan, spouse of deceased, dated 7/17/02: 'When my husband came home in the evenings after work, he would be covered head to toe by creosote.'" (Clerk's Record, 558, 561 and 564-565).[1]

From this evidence, Dr. Dahlgren could reliably categorize Mr. Duncan according to the various EPA-described treatment plant job categories associated

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[1] Although plaintiffs were prepared to have Dr. Dahlgren prepare complete reports on each trial plaintiff selected by the court (as was done for the initial trial plaintiff Leslie Duncan), no such reports were done as the court made it clear that it intended to grant no-evidence motions for summary judgment as to all remaining plaintiffs given that the supporting evidence for each such additional plaintiff was likely to be essentially the same as the evidence proffered in opposition to the initial motion regarding Leslie Duncan. The trial court did not suggest that it needed more worker exposure data to deny the no-evidence motions. In fact, plaintiff Leslie Duncan was chosen as the lead trial plaintiff because his work exposure to the creosote ranked among the highest of the workers, and his injury (death by cancer) the most severe.

with hazardous levels of creosote exposure. The EPA/Creosote Council Exposure Study Report identifies "post-application occupational exposure" to "handlers" working in various capacities as "cylinder area loader, cylinder area helper, . . . load-out area loader, load-out loader helper, or, load-out area forklift operator. . . . " (Clerk's Record, 1030). Mr. Duncan's exposure was clearly that of a "handler" as he spent fifteen years, five days a week at defendant's plant "loading freshly treated railroad crossties on trains at the wood treatment plant near the treatment cylinders. . . . " (Clerk's Record, 565). Mr. Duncan was a load-out operator (LO). Plaintiffs' trial witnesses included men who worked closely with Mr. Duncan at the treatment plant, who were prepared to (and did in pre-trial depositions taken by the Railroad) testify to Mr. Duncan's daily exposure to the fumes and liquid creosote.

Dr. Dahlgren also had plaintiffs' interrogatories which described each worker's creosote exposure experience while working for defendant Railroad. Plaintiffs' interrogatory responses discuss in detail the plaintiffs' job duties and creosote exposure. (CR 1402-1441). In his interrogatory responses, for example, employee Lloyd Busby states, "I worked for Southern Pacific from 1973 to 1992. From 1976 to 1980 I worked at the Englewood Yard and would travel to [the] 4910 Liberty Road creosote facility every day to pick up newly treated wood ties. From 1980 to 1985 I worked as a machine operator loading creosote treat[ed] ties onto trucks at 4910 Liberty Road creosote facility. From 1985 to 1987 I worked at the Liberty Road creosote facility handling treated

ties while I put tracks together. I would get creosote material all on my skin and clothes . . . [t]hroughout my employment with Southern Pacific. . . . I would get the wood treatment material on my skin on a regular basis while I worked, and also breathed the fumes from the creosote wood treatment materials." (Clerk's Record 1420-1422).

Federal authority specifically recognizes that precise information concerning the exposure necessary to cause a specific harm to humans and exact details pertaining to the plaintiff's exposure levels are not always available, nor are they necessary, so long as there is reliable evidence of a substantial exposure to the hazardous chemical. *Westberry v. Gislaved*, 178 F.3d 257, 264 (4th Cir. 1999), and, *Heller v. Shaw Industries*, 167 F.3d 146, 157 (3rd Cir. 1999). Plaintiffs argued this exposure evidence standard both in the trial and appellate courts. (CR 246, 257, RT 61, *Abraham*, 233 S.W. 3d at 23) (Appendix B-17).

An Opinion by this Court is necessary to clarify the expert witness admissibility standard in FELA cases.

REASONS FOR GRANTING WRIT

TO ENSURE THAT COURTS DO NOT IMPROPERLY NARROW THE EMPLOYER'S LIABILITY IN FELA CASES (AS WAS DONE IN THIS CASE), THE COURT MUST ESTABLISH THE PROPER STANDARD FOR ADMISSIBILITY FOR EXPERT WITNESS TESTIMONY IN FELA CASES (WHETHER FILED IN STATE OR FEDERAL COURT)

A. By Imposing Its Own Restrictive Standard for Admissibility of Expert Witness Testimony in Toxic Tort Cases, Texas is Depriving Plaintiffs of Their Rights Under FELA

The expert witness testimony admissibility standard used by the Texas Appellate Court directly conflicts with the FELA. The *Havner* standard used by the Texas Appellate Court requires that to be admissible a doctor's medical causation opinion must rule out with reasonable certainty all other potential causes of plaintiffs' disease (leaving defendant's negligent conduct as the only cause). FELA, however, requires only that defendant's negligence be a contributing cause of plaintiff's condition (even if only a *slight* contributing cause).

The *Havner* standard used by the Texas Appellate Court also requires that a plaintiff in a toxic tort case submit *quantitative* levels of exposure harmful to humans generally, and specific *quantitative* levels experienced by the plaintiff which are equal to or

greater than the numbers found to be harmful to humans generally. This admissibility requirement of quantitative exposure levels runs counter to the FELA's broad liability for employers, and is not part of the *Daubert* admissibility requirements. In fact, federal cases make it clear that quantitative levels of exposure are not necessary to prove causation in toxic tort cases. In *Westberry v. GGAB*, 178 F.3d 257 (4th Cir. 1999), the Court held that exposure levels need not be quantified to demonstrate that a substance is toxic to humans given substantial exposure. The following passage from *Westberry* is instructive:

> "Westberry testified that he was exposed to very high levels of airborne talc through the workday. According to his testimony, when he removed the gaskets from the box in which they had been shipped, the gaskets, which were black, had so much talc on them that they appeared to be white or gray. And, talc was released into the air as the gaskets went through the cutting machine. Westberry testified that the talc that settled from the air around his work area was so thick that one can see footprints in it on the floor. He further testified that he worked in clouds of talc and that it covered him and his clothes. . . . This testimony concerning the level of airborne talc was adequate to permit a fact finder to conclude that Westberry was exposed to high concentrations of airborne talc. . . . " *Westberry*, 178 F.3d

at 264.

The *Westberry* court stated that "only rarely are humans exposed to chemicals in a manner that permits a quantitative determination of adverse outcomes. Human exposure occurs most frequently in occupational settings where workers are exposed to industrial chemicals . . . ; however, even under these circumstances, it is usually difficult, if not impossible, to quantify the amount of exposure." (Citing the Federal Reference Manual on Scientific Evidence, 187 (1994)). The *Westberry* court also cited *Heller v. Shaw Industries*, 167 F.3d 146, 157, (3rd Cir. 1999), for the proposition that "'even absent hard evidence of the level of exposure to the chemical in question, a medical expert could offer an opinion that the chemical caused plaintiff's illness.'" *Westberry* at 264. In this case, plaintiffs will testify to the fact that they got substantial amounts of the creosote on their clothes and skin throughout the work day, and that they breathed the creosote vapors all day long.

In *Bonner v. ISP Technologies, Inc.*, 259 F.3d 924, 928 (8th Cir. 2001), the court stated that "Bonner did not need to produce a mathematically precise table equating levels of exposure with levels of harm in order to show that she was exposed to a toxic level of [the chemical], but only evidence from which a reasonable person could conclude that her exposure probably caused her injuries. *Bednar v. Bassett Furniture Mfg. Co.*, 147 F.3d 737, 740 (8th Cir. 1998) (quoting *Wright*, 91 F.3d at 1107)."

The National Institute of Occupational Safety and Health has concluded (in its official Department of Health publication on coal tar products, including creosote) that "no absolutely safe [exposure] concentration can be established for a carcinogen [such as creosote]. . . ." (*See*, CR 975, Exhibit 10, p. 2 to Dahlgren Affidavit). In this case, Dr. Dahlgren had sufficient information concerning the extent of plaintiffs' chronic exposure to the creosote to allow him to render scientifically valid conclusions concerning the cause of plaintiffs' claimed illnesses, particularly in light of the fact that there is no safe dose of a carcinogen.

B. Given FELA's Recovery Facilitating Thrust and Its Near Guarantee of a Jury Trial For FELA Plaintiffs on the Issue of Causation, This Court Should Set a Uniform Expert Witness Admissibility Standard for FELA Cases by Adopting the Weight-of-the-Evidence Methodology

1. Plaintiffs are Entitled to a Jury Trial Under the Applicable FELA Standard of Causation

A FELA plaintiff is essentially guaranteed a jury trial on the issue of causation. As stated by the court in *Pehowic vs Erie Lackawanna RR Co.*, 430 F.2d 697, 699-700 (Third Cir 1970), "[a] review of the decisions of the [United States] Supreme Court with reference to the integrity of the jury's function in these [FELA] cases . . . teaches that a trial court is

justified in withdrawing . . . issues from the jury's consideration only in those *extremely rare instances* where there is a *zero probability* either of employer negligence or that any such negligence contributed to the injury of an employee." (*See also*, *Hines v. Consolidated Rail Corp.*, 926 F.2d 262 (3rd Cir. 1991), which cited the *Pehowic* "zero probability" test with approval.)

The United States Supreme Court announced a relaxed test for establishing causation in FELA cases in its landmark decision, *Rogers v. Missouri Pacific Railroad Co.*, 352 U.S. 500 (1957). The *Rogers'* Court set forth the following test to determine whether there is a jury question on the issue of causation:

> "Under this statute the test of a jury case is simply whether the proofs justify with reason the conclusion that employer negligence played any part, *even the slightest*, in producing the injury or death for which damages are sought. *It does not matter that, from the evidence, the jury may also with reason, on grounds of probability, attribute the result to other causes. . . .*[2] *Rogers*, 352

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[2] The *Havner* requirement that in toxic tort cases plaintiffs' medical causation expert must rule out all other causes of plaintiffs' diseases is thus directly contrary to federal law. Texas courts have expressly acknowledged that "no state procedure or rule can interfere or diminish the rights that are given under FELA." *Kansas City Southern Railway Company v. Stokes*, 20 S.W.3d 45, 48

U.S. at 506-507 (emphasis added).

The recent federal court case of *Richards v. Consolidated Rail Corporation*, 330 F.3d 428, 434 (6th Cir. 2003), explained the FELA causation standard as follows:

> "Under this [*Rogers*] standard, the role of the jury is significantly greater in FELA cases than in common law negligence actions. . . . *Rogers* requires a plaintiff alleging a FELA violation to offer 'more than a scintilla of evidence in order to create a jury question on the issue of employer liability, but not much more.' *Aparicio v. Norfolk & D.Ry Co.*, 84 F.3d 803, 810 (6th Cir. 1996). . . . The *Rogers* Court adopted this relaxed standard in order to effectuate Congress' intent . . . 'to preserve the plaintiff's right to a jury trial.' *Green v. River Terminal Ry Co.*, 763 F.2d 805, 806 (6th Cir. 1985). . . . [T]he *Rogers* court found that the Congress vested the power of decision in these [FELA] actions exclusively in the jury in all but the infrequent cases where fair-minded jurors cannot honestly differ.' [*Rogers*] at 510."

(2000), citing *Dutton v. Southern Pacific Transportation Company*, 576 S.W.2d at 783-784 ("substantive rights governed by the FELA cannot be interfered with, lessened or destroyed by a state rule of practice or procedure.")

As the United States Supreme Court stated in *Dice v. Akron Railroad Co.*, 342 U.S. 359, 363 (1952), "[t]he right to trial by jury . . . is part and parcel of the remedy afforded railroad workers under the Act. . . . To deprive railroad workers of the benefit of a jury trial where there is evidence to support negligence is to take away a goodly portion of the relief which Congress has afforded them."

In *Hines v. Consolidated Rail Corporation*, 926 F.2d 262, 268 (3rd Cir. 1991), the court stated that "a FELA plaintiff need only present a minimal amount of evidence in order to defeat a summary judgment motion." Importantly, the *Hines* court also stated that "the standard under FELA can significantly influence a determination of the admissibility of [Dr.] Shubin's [medical causation] testimony. By enacting FELA, Congress desired to 'secure jury determinations in a larger proportion of cases than would be true of ordinary common law actions.' *Boeing Co. v. Shipman*, 411 F.2d 365, 371 (5th Cir. 1969). Indeed, jury determinations were intended to be part of the FELA remedy. *Atlantic & Gulf Stevedors, Inc. v. Ellerman Lines*, 369 U.S. 355, 360 (1962)." *Hines* at 269. In refusing to let stand the district court's pre-trial exclusion of plaintiffs' medical causation expert (Dr. Shubin), the *Hines* court stated that "[e]ven more significant [regarding the admissibility of Dr. Shubin's medical causation testimony] is the more lenient FELA standard for causation." *Hines* at 271. The *Hines* court concluded its discussion by stating that "[o]ur liberal standard of causation under FELA bolsters our conclusion that there could be sufficient evidence in this case to survive a summary

judgment." *Hines* at 276. Citing and discussing the *Hines* opinion, in her concurring opinion in *Missouri Pacific Railroad Co. v. Navarro*, 90 S.W.3rd 747, 759-760 (2002), Justice Lopez expressly recognized the need for Texas jurisprudence to "embrace the distinction between a state court claim and a FELA claim" when ruling on motions to exclude expert medical causation testimony.

The Texas Supreme Court has, in fact, recognized the general distinction between a plaintiff's common law burden of causation and the causation burden in a FELA case:

> "In cases of this nature the federal law gives the plaintiff and other railroad workers the right to have causation of their injuries determined by the simple test of whether they resulted 'in whole or in part' from the railroad's negligence. . . . This is entirely different and much less burdensome than the usual proximate cause test which is applied to common law negligence cases. . . . Causation under the F.E.L.A. does not place a burden on the plaintiff to show foreseeability or cause in fact 'unbroken by any new independent cause'. . . ." *Dutton v. Southern Pacific Transportation Company,* 56 S.W.2d 782, 784-785 (1978).

The court in *Savage v. Union Pacific Railroad Company*, 67 F.Supp.2d 1021, 1027 (E.Dist. Ark. 1999), stated that "under FELA, the plaintiff carries only a slight burden on causation." The *Savage* court further stated that "a plaintiff . . . bears the burden of presenting evidence from which a jury could conclude a . . . 'likely' causal relationship as opposed to merely a 'possible' one." *Id.* The Court observed in *Savage v. Union Pacific Railroad Company*, 67 F.Supp. 1021, 1027 (E.D. Ark. 1999), that "it is not difficult to see the tension between the *Daubert* standard for admissibility of expert testimony and the FELA standard on causation for submission of a case to a jury."

In the case of *In Re Conrail Toxic Tort FELA Litigation*, 1998 U.S. Dist. Lexis 12037, 1998 Westlaw 465897 (W.D. Penn. August 4, 1998), the court stated as follows:

> "To recapitulate, then, as long as plaintiff's expert presents scientifically reliable evidence that the toxic exposure could have played some role, however small, in causing plaintiff's injuries, the testimony should be admitted under the lower FELA standard set forth in *Hines* [*v. Consolidated Rail Corp.*, 926 F.2d 262 (3rd Cir. 1991) ('a medical expert can testify that there was more than one potential cause of plaintiff's condition . . . [and] the standard under FELA can significantly influence a determination of the admissibility of [expert medical]

> testimony.'). *Hines* at pp. 264-265, 266, and 267.]." *In Re Conrail toxic Tort FELA Litigation* at p. 19.

In this case plaintiffs have presented reliable expert evidence that the claimed illnesses were caused at least in part by their chronic exposure to the toxic creosote material. The ultimate decision on the issue of causation should have been left to the jury. Notwithstanding the established rule that "FELA claims should not be dismissed on summary judgment unless there is absolutely no reasonable basis for a jury to find for plaintiff," *Derienzo v. Metro Transportation Authority*, 404 F. Supp 555, 565 (S.D.N.Y. 2005), the trial court granted defendant's motion for summary judgment on the issue of medical causation. Summary judgment should have been denied in this FELA case.

2. The Weight-of-the-Evidence Methodology is Appropriate for FELA Cases

Concerning whether coal tar creosote exposure can cause certain human diseases or illnesses, Dr. Dahlgren reasonably relied upon several lines of reliable scientific evidence. Addressing the issue of a "weight-of-the-evidence" methodology in medical causation cases, United States Supreme Court Justice John Paul Stevens wrote in his concurring and dissenting opinion in *General Electric Co. v. Joiner*, 522 U.S. 136, 153-155 (1997), that:

> "[i]t is not intrinsically 'unscientific' for experienced professionals to arrive at a conclusion by weighing all available scientific evidence – this is not the sort of 'junk science' with which *Daubert* was concerned. . . . [T]he reliability inquiry must focus on methodology, not conclusions. . . . *Daubert* quite clearly forbids trial judges from assessing the validity or strength of an expert's scientific conclusions, which is a matter for the jury. . . . [N]othing in either *Daubert* or the Federal Rules of Evidence requires a district judge to reject an expert's conclusions and keep them from the jury when they fit the facts of the case and are based on reliable scientific methodology."

The *Joiner* Court did not criticize or otherwise invalidate the "weight-of-the-evidence" methodology as it relates to expert testimony on the issue of medical causation in toxic tort cases. In *Magistrini v. One Hour Dry Cleaning*, 180 F.Supp.2d 584, 502 (U.S.D.C. N.J. 2002), the federal court stated that "flexible application of the *Daubert* factors permits this Court to find that, properly applied, the "weight-of-the-evidence" methodology is not an unreliable methodology. . . ." The *Magistrini* court found that a "weight-of-the-evidence" methodology is acceptable where the expert offers "good grounds" for using the particular study or other evidence in support of his or her opinion. *Id.* at 603.

Even the *Navarro* court recognized the validity of the "weight-of-the-evidence" or "analytical gap" analysis for determining causation: "[e]ven under the reduced burden of the 'analytical gap' analysis, Navarro's expert witness testimony is flawed. *See, Gammill*, 972 S.W.2d at 727 (applying 'analytical gap' theory to expert witness testimony). . . ." *Navarro* 90 S.W.3d 747 at 758.

This Court should adopt the weight-of-the-evidence standard as the proper admissibility standard for expert witness testimony in FELA cases, especially FELA cases involving illnesses from exposure to toxic chemicals.

3. Plaintiffs' Expert Performed a Reliable Weight-of-the-Evidence Analysis Sufficient to Allow the Issue of Medical Causation to be Decided by the Jury

As stated in his Affidavit, Dr. Dahlgren's medical causation opinion was based upon the following scientific and other evidence:

- Plaintiffs' exposure and medical histories (CR:844-845);

- The National Creosote Council 2001 wood treatment plant workers exposure study documenting significant inhalation and dermal doses of creosote by all wood treatment facility workers at five different creosote wood treatment plants. (CR:849-850, 931-951).

Using this study, Dr. Dahlgren estimated the qualitative level – low, medium, or high – of creosote exposure the workers experienced at the Houston Plant;

- The United States Environmental Protection Agency's 2003 *Preliminary Risk Assessment on the Health Effects of Exposure to Coal Tar Creosote at Wood Treatment Plants* (based upon the National Creosote Council's 2001 Exposure Report). (CR:853-854, 997-1178). The EPA's *Preliminary Risk Assessment* report concluded that "creosote acts most effectively as a [cancer] promoter but also functions as a complete carcinogen," and that "cancer risks for all post-application occupational scenarios exceeded the level of concern. . . ." The *Preliminary Risk Assessment* also states that "limitations notwithstanding, among the epidemiological studies on the effects of creosote exposure, increased risks for the development of a number of diseases have been observed. Diseases typically found to be in excess include skin cancer and non-malignant skin disorders, bladder cancer, lung cancer and non-malignant respiratory diseases" (CR:1147);

- Defendant's *Internal Report* (dated March 16, 1981) stating that the creosote used at the Houston Plant contained cancer-causing **polycyclic aromatic hydrocarbons** that are

recognized by the Occupational Safety & Health Administration to have carcinogenic potential (CR:846-847, 903-904);

- The United States Department of Health, Agency for Toxic Substances Disease Registry, 2001 *Toxicological Profile for Coal Tar Creosote, Coal Tar Pitch and Coal Tar Pitch Volatiles*, a 357 page official government document compiled and reviewed by medical and other scientists which chronicles the relevant medical literature on the health effects caused by coal tar products, including creosote. (CR:851-852, 960). The Department of Health published the toxicological profile on coal tar products jointly because, as stated in the profile, "[c]oal tar creosote, coal tar, and coal tar pitch are mixtures of similar compounds [and] for this reason . . . we will refer to coal tar creosote, coal tar, and coal tar pitch simply as creosote. . . . Coal tars are byproducts of the carbonization of coal to produce . . . natural gas. Coal tar creosotes are distillation products of coal tar, and coal tar pitch is a residue produced during the distillation of coal tar. . . . The major chemicals in coal tar creosote, coal tar and coal tar pitch that can cause harmful effects are polycyclic aromatic hydrocarbons (PAHs), phenol and creosoles." (CR:965-966). (Defendant's own industrial hygienist, when reporting to the Railroad on the health effects of coal tar creosote-containing wood treatment materials, stated that "creosote is commonly

handled and controlled occupationally similar to coal tar since the health effects as a . . . potential carcinogen with routine, prolonged contact or inhalation are the same.") (CR:907, 908).

The ATSDR *Toxicological Profile on Coal Tar Products* states that "[t]he available information suggests that increased carcinogenicity risk and adverse dermal and respiratory effects are the most important health concerns related to exposure to coal tar and coal tar products. . . . Studies of workers exposed to coal tar creosote, coal tar, coal tar pitch, and coal tar pitch volatiles in various industrial environments have found increased cancer risk involving a number of tissues including the respiratory tract, skin, lung, pancreas, kidney, scrotum, prostate, rectum, bladder and central nervous system. . . . Animal studies have demonstrated the carcinogenic potential of dermally applied coal tar products. IARC [The Internal Agency for Research on Cancer] has classified creosote as a Group 2A Mixture, probable human carcinogen. IARC classifies coal tar and coal tar pitches as Group 1 mixtures, carcinogenic to humans . . . EPA has classified creosote as a Group B1, probable human carcinogen. . . . . . Workers using coal tar and coal tar creosote in wood preservative plants exhibited mild to moderate pulmonary restrictive and obstructive deficits. . . . Observations were made of the effect of coal tar creosote on

workers constructing buildings with treated wood (Jonas,1943). Complications observed in 2.4% of the workers included neurological symptoms including headache, weakness, confusion, vertigo and nausea." (CR:960, 968-972);

- The United States Department of Health, National Institute of Safety & Health, *Criteria for Recommended Standard, Occupational Exposure to Coal Tar Products*, September 1977 (another official government document compiled and reviewed by medical and other scientists which references numerous scientific studies in support of its findings and conclusions). (CR:851-853, 974). In its *Criteria for Recommended Standard*, the United States Department of Health stated that **"[f]rom the epidemiologic and experimental toxicologic evidence on coal tar, coal tar pitch and creosote, NIOSH has concluded that they are carcinogenic and can increase the risk of lung and skin cancer in workers."** (CR:974, 975);

- The findings of the International Agency for Research on Cancer (IARC) (CR:853, 993-995). IARC states that "[t]here is sufficient evidence for the carcinogenicity in experimental animal studies of coal tars, creosotes, creosote oils, anthracene oils and coal tar pitches. . . . There is sufficient evidence that occupational exposure to coal tars as it occurs during the destructive distillation of coal is casually

associated with the occurrence of skin cancer in humans. . . . The findings of the few studies available on other occupational exposure to coal tars are consistent with that evaluation. . . . There is sufficient evidence that coal tar pitches are carcinogenic in humans. . . . There is limited evidence that coal-tar-derived creosotes are carcinogenic in humans. . . . Taken together, the data indicate that coal tar and coal tar pitches are casually associated with cancer in humans, and that creosotes derived from coal tars are probably carcinogenic in humans." (CR:993, 995);

- Creosote manufacturer (Kerr-McGee Chemical Company) *Material Safety Data Sheet* for Coal Tar Creosote. (CR:855, 1180-1186). The Kerr-McGee Material Safety Data Sheet for Coal Tar Creosote states, in relevant part, as follows: "POTENTIAL HEALTH EFFECTS: WARNING! HARMFUL IF. . . PRESERVATIVE VAPORS OR MIST ARE INHALED: MAY CAUSE IRRITATION TO THE NOSE, THROAT AND LUNGS. Prolonged exposure can lead to inflamation of the nasal passages (rhinitis), lung disease (bronchitis) or asthma. . . . Repeated or prolonged exposure may cause . . . allergic dermatitis (skin). Animal studies indicate that prolonged skin exposure to creosote can cause cancer. SYMPTOMS OF EXPOSURE Inhalation: Breathing preservative vapors . . . may cause headaches, drowsiness, possible weakness and incoordination. . . . MEDICAL CONDITIONS

AGGRAVATED BY EXPOSURE – Pre-existing skin disease, breathing or respiratory disease or disorders, [and] sinus problems." (CR:1181);

- Creosote manufacturer (Koppers, Inc.) *Material Safety Data Sheet* (CR:856, 1188-1189). The *Material Safety Data Sheet* for Coal Tar Creosote published by the creosote manufacturer of Kopper's Inc. states in relevant part as follows: "HEALTH/SAFETY ALERT – CHRONIC OVEREXPOSURE . . . MAY CAUSE CANCER . . . SKIN CONTACT CAN RESULT IN SEVERE IRRITATION WHICH WHEN ACCENTUATED BY SUN-LIGHT MAY RESULT IN PHOTOTOXIC SKIN REACTION. . . . THIS MATERIAL . . . HAS CAUSED CANCER IN LABORATORY ANIMALS. . . . INHALATION: . . . REPEATED AND/OR PROLONGED CONTACT TO HIGH CONCENTRATIONS OF VAPOR MAY RESULT IN RESPIRATORY DIFFICULTIES, CENTRAL NERVOUS SYSTEM (CNS) EFFECTS CHARACTERIZED BY HEADACHES, DROWSINESS, DIZZINESS, WEAKNESS, [AND] INCOORDINATION. . . ." (CR:118-119);

- A 1992 Epidemiological Health Study of Creosote Wood Treatment Plant Workers conducted by Dr. Karlehagen [which was published in a peer review journal, Scandinavian Journal of Worker and Environmental Health]. (CR:857, 1213-1216). Dr. Karlehagen and his colleagues studied 922 creosote wood

treatment plant workers at 13 coal tar creosote wood treatment plants in Sweden and Norway. The authors concluded **that "[a] doubled risk for skin cancer was . . . observed [with a 95% Confidence Interval] and this increase could probably be attributed to the combination of exposure to creosote and sunlight."** (CR:1216). While the authors were unable to quantify individual exposure levels to the creosote, they stated that the operators were "exposed to creosote vapors" and "[a]s the wood was handled manually, the skin of the operator was often exposed to creosote and contamination of the skin occurred when the [wood treatment machinery] and the pipes were cleaned or repaired." (CR:1214);

- Dr. Dahlgren also relied upon Dr. Flodin's 1987 article discussing the connection between creosote exposure and multiple myeloma [bone marrow cancer]. (CR:858, 1218-1228). Dr. Flodin found a statistically significant risk of developing multiple myeloma as a result of exposure to creosote. Relative risk of 6.0 with a 95% confidence interval;

- Because there are relatively few published studies of the human health effects of exposure to coal tar creosote, and because the principal component of creosote (and all coal tar products) consist of polycyclic aromatic hydrocarbons (PAHs), medical scientists (including Dr. Dahlgren) reasonably rely upon

health studies relating to PAH exposure generally when assessing medical causation for persons exposed to PAH-containing compounds (such as coal tar creosote). (CR:858-862). Cigarettes, for example, contain PAH's and are known human carcinogens. Among the medical literature relied upon by Dr. Dahlgren was the peer-reviewed Journal article entitled *"Cancer Risk from Occupational and Environmental Exposure to Polycyclic Aromatic Hydrocarbons, Cancer Causes and Control"* 1997 (CR:1271). The article compares the cancer risk from PAH's in aluminum production, coal gasification, coke production, iron and steel factories, coal tar distillation, creosote wood treatment operations, roofing, road paving, and chimney sweeping. The author states that "[h]umans are exposed to PAH's by inhalation, and ingestion and skin contact. Non-occupational respiratory exposure is mainly from tobacco smoke. . . . The main route of occupational exposure is, in most industries, inhalation; in many instances, however, skin exposure represents an important route. . . . **PAH's . . . generally account for at least 75% of creosotes**. They have been used extensively as wood preservatives. **Heavy occupational exposure to mixtures of PAH's entails a substantial risk of lung, skin and bladder cancer."** (CR:858-859, 1271, 1284, and 1294); Dr. Dahlgren relied upon another medical science article which states that "the carcinogenicity of PAHs and PAH-containing

materials in humans seems to be beyond dispute." (CR:859, 1357, 1358).

Yet another PAH article relied upon by Dr. Dahlgren states that "[t]his study shows a clear excess of lung cancer risk in men who had worked . . . in jobs generally with high exposure to coal tar pitch volatiles." (CR:860, 1312, 1320). **It is undisputed that coal tar pitch volatiles were present in the process emissions at the Houston Wood Preserving Works. In fact, defendant's expert report documents the presence of coal tar pitch volatiles in the air at the subject creosote plant.** (CR:1326-1327).

Dr. Dahlgren also reviewed and relied upon the 1997 *Journal of Occupational Health* article entitled *"Cancer Mortality Among Carbon Workers in China: Retrospective Cohort Study"* by Ning Lui, et al., pp. 325-330. Lui and his colleagues studied a group of 6,635 male workers exposed to PAH-containing coal tar pitch volatiles for a fifteen-year period between 1970 and 1985. The study found standardized mortality ratios ("SMRs") – the equivalent of relative risks – for lung cancer and liver cancer among the workers highly exposed to coal tar pitch volatiles of 4.30 (p0.01) and 2.25 ($p<0.01$), respectively. (The P value is the probability value and equates to a 95% Confidence Interval if less than .05.) The SMRs for lung cancer and cancer of the esophagus among moderately CTPV-exposed

workers were 1.52 ($p>.05$) and 5.46 ($p<0.01$), respectively. The results showed that the numerous deaths from lung cancer were correlated with coal tar pitch volatiles in the carbon-producing process in carbon plants. The study concludes that "[t]he SMRs for all cancers and lung cancer were 3.17 ($p<0.01$) and 5.34 ($p<0.01$), respectively, for the non-smokers among the highly exposed workers. . . ." *Id.* at 330. (CR:860-861, 1329, 1334, 1336, 1338); and, lastly,

- Dr. Dahlgren's recently published Peer-Reviewed articles on his study of creosote wood treatment plant exposures and resulting illnesses to neighboring residents. (CR:840, 1197-1212).

In this case, the workers suffer from illnesses – including cancer, skin and respiratory ailments – which the medical science shows can be caused by chronic exposure to coal tar creosote. (*See*, CR:876-901, Plaintiffs' Summary of Illness Chart). The exposure and medical science evidence presented by plaintiffs in this case supports Dr. Dahlgren's conclusion that plaintiffs' claimed illnesses were caused, at least in part, by their chronic exposure to the creosote vapors and liquid.

Federal Rule of Evidence 702 provides as follows:

> "If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or determine a fact in issue, a witness

> qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data; (2) the testimony is the product of reliable principles and methods; and (3) the witness has applied the principles and methods reliably to the facts of the case."

Interpreting Rule 702, the Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), held that "scientific expert testimony must be both reliable and relevant to be admissible." *Daubert's* reliability requirement forecloses the admission of expert witness testimony when it is not "supported by appropriate validation." *Daubert*, 509 U.S. at 590. In other words, the expert's opinion must be grounded in more than "unsupported speculation or subjective belief." *Curtis v. M&S Petroleum, Inc.*, 174 F.3d 661, 668 (5th Cir. 1999). Texas has adopted the *Daubert* standard of reliability. *See*, *Frias vs. Atl. Richfield Co.*, 104 S.W.3d 925, 927 (Tex-App Houston 2003).

As fully outlined and referenced above, Dr. Dahlgren relied upon reliable and relevant scientific and other evidence. He not only relied upon plaintiffs' medical and exposure histories, but he relied upon governmental-sponsored exposure studies for creosote wood treatment plant workers, as well as numerous governmental reports on the health effects of chronic exposure to coal tar creosote and other coal

tar products. He relied upon specific scientific literature to validate his opinion that coal tar creosote can cause various cancers as well as skin and respiratory disease, as well as some neurological problems. He also relied upon the health warnings issued by the manufacturers of the creosote. He relied upon defendant's own admission that creosote contains cancer-causing chemicals. Dr. Dahlgren also relied upon his own exposure and health studies relating to coal tar creosote which were peer reviewed and published in a prominent journal.

Dr. Dahlgren's opinions rested on a solid foundation of scientific evidence. Summary judgment should have been denied to allow Dr. Dahlgren's medical causation opinions to be heard and weighed by the jury in deciding the issue of causation.

CONCLUSION

The Texas Court of Appeal's decision runs counter to long-standing FELA jurisprudence by impermissibly narrowing employers' liability in FELA cases. The Texas decision severely limits a FELA plaintiff's access to a jury trial by restricting a FELA plaintiff's right to introduce testimony on the issue of medical causation in toxic tort cases. Certiorari should be granted to ensure that FELA plaintiffs retain their right to a jury trial on the issue of causation in the state and federal courts.

Dated: February 26, 2008.

Respectfully submitted,

ENGSTROM, LIPSCOMB & LACK

WALTER J. LACK

RICHARD P. KINNAN
Counsel of Record

Attorneys for Petitioners

APPENDIX A

LIST OF PETITIONERS

All Plaintiffs and Intervenors in the above styled and numbered cause of action, specifically, Clarence Abraham; Delois Abraham, as Personal Representative and/or as a statutory heir of the Estate of Dalton Abraham, Deceased; Milton J. Abraham; Alvin Alexander; Caffery Alexander; Cliffton J. Alexander; Clovis Alexander; Ernest Alexander; Ernest J. Alexander; Lionel J. Alexander; Melton Alexander; Norris Alexander, Patrick Alexander; Russell J. Alexander; Shelton Alexander; Wilbert J. Alexander; Paul J. Alfred; Gabriel Almeida; Domingo Alonso; Leo D. Anderson; Olivia Anderson, as Personal Representative and/or as a statutory heir of the Estate of Orise Anderson, Deceased; Charles Arceneaux, as Personal Representative and/or as a statutory heir of the Estate of Wilton J. Arceneaux, Deceased; Charles Arceneaux; Stanford Archie; John W. Arnold Jr.; Freddie L. Arthur; Michael E. Artzt; Helen Mack, as Personal Representative and/or as a statutory heir of the Estate of Willie Austin, Deceased; Danny Baisey; Leroy J. Baptiste; Carroll J, Barber; Darrell Barber; Harold Barber, Jr., as Personal Representative and/or as a statutory heir of the Estate of Harold Barber, Deceased; Ronald Bass; Herbert Batiste; Jewel Bennett; Jacqueline Y. Bernard; Harvey Black; Horace G. Black; Louis C, Black; Franck C. Blake; Nolton J. Blanchard; Mildred Bland, as Personal Representative and/or as a statutory heir of the Estate of Vernon Bland, Deceased; Jessie Blanton, Jr.; Rodney D. Blanton; Acy Bluford, Jr., Joseph H. Bonin; Jimmy Boykin; Vicki Lounge, as Personal Representative and/or as

a statutory heir of the Estate of Thomas B. Brannon, Deceased; William R Brazzil; Marvin Britton; Eugene Brown; Ronald Brown; Leslie Bryan; Curtis Bryant; Richard C Bryant; Keith A. Burley; Fred A. Burton; Lloyd D. Busby, Christopher A, Bush, Herbert Bushnell, as Personal Representative and/or as a statutory heir of the Estate of Edwin Bushnell, Deceased; Herbert Bushuell; Dean Bullara; Lee R, Calais; August R. Caldwell; Sorney Calvert; Alfonso Cardenas, Jr., Charles Carmouche; Rafael Casanova, Jr.; Rudolph Castaneda; Clarence Celestine; Kenneth Charles; Michael A. Charles, Anna M. Charles, as Personal Representative and/or as a statutory heir of the Estate of Russell E Charles, Sr., Deceased; John F. Citizen; Jerome Clark; William M. Coleman; Johnnie W Colvin; Phillip Comeaux, Robert Comeaux, Alton Cormier; Delbert Courtney; Bernard Cramer; Elton Crawford, as Personal Representative and/or as a statutory heir of the Estate of Alton Crawford, Deceased; Elton Crawford; John D. Cross; Stephen M. Currie; Leonard Curry; Darryl Davis; Willie P Davis; Jamesetta Davis, as Personal Representative and/or as a statutory heir of the Estate of Albert Davis, Sr., Deceased; Robert J. Deese; Charles E. Dennis; Joseph Derouselle; Eugene Drain; Paul Dumas, Jr.; Mary Duncan, as Personal Representative and/or as a statutory heir of the Estate of Leslie Duncan, Deceased; Diane Eaglin, as Personal Representative and/or as a statutory heir of the Estate of Robert Eaglin, Deceased; Earl Ellis, as Personal Representative and/or as a statutory heir of the Estate of Leroy J. Ellis, Jr., Deceased; Earl J. Ellis; Robert D. Ervin; Guadalupe Escochea, Jr ; Daley Etienne; Alfred D. Fields; Rita Filmore, as Personal

Representative and/or as a statutory heir of the Estate of Sterling Filmore, Deceased; Reginald B. Fitzgerald; W. G. Foehr; Bobbie Martin, as Personal Representative and/or as a statutory heir of the Estate of Raymond L Ford, Deceased; Manuel Fraga; Harold J. Francis, Carlton Franklin, as Personal Representative and/or as a statutory heir of the Estate of George Franklin, Deceased; Ted Frazier, as Personal Representative and/or as a statutory heir of the Estate of John Frazier, Deceased; Rodney Freeman; Oliver R. Galloway; Eddie B. Garcia; Jose B. Garcia; Samuel Gardner; Donald R. Gilder; David Gipson; Alma Gobar, as Personal Representative and/or as a statutory heir of the Estate of Whitney Gobar, Deceased; Joseph C. Gollub; Vincente Gomez; Leonard Green; Paul Green; Jose Guerra; Clifton J. Gulliory; Felipe Gusman; Joseph Hall, Jr.; Deborah Harris, as Personal Representative and/or as a statutory heir of the Estate of Fredrick Harris, Deceased; Brenda J. Hawkins, as Personal Representative and/or as a statutory heir of the Estate of Nathaniel W. Hawkins, Deceased; Melvin R. Hayward; Candelario Hernandez; John E. Hollie, Jr.; Mary K. Hooper, as Personal Representative and/or as a statutory heir of the Estate of E. D. Hooper, Deceased; Kenneth W. Hope, Sr.; Shelton D. Hope; Hoover L. Hughes; Ronald W. Hunter; Glen Hutchinson; John Paul Jackson; Lester Janice; Joseph Janice, as Personal Representative and/or as a statutory heir of the Estate of Toney Janice, Deceased; Donnie Jefferson; Roy Jefferson; Bennie E. Johnson; Bernard Johnson; Donald S. Johnson; Jimmy Johnson; Johnny E. Johnson; Larry Johnson; Robert Johnson, Jr.; Robert H. Johnson; Ronnie Johnson;

Wallace Johnson; Gilbert J. Jones, Joseph C. Jones; Larry Jones, McAlvin Jones; Willie Jones; Robert W. Joseph, Sr., Charles E. Junior; Marion R. Kalinwski; Donald R. Keglea; Billy Ray King, Weldon C. King, Jr.; Joseph A. Landry; Andrew H. Law; Otilia LeBlanc, as Personal Representative and/or as a statutory heir of the Estate of Joseph W, LeBlanc, Deceased; Earl R. Lewis; Angela Rucks, as Personal Representative and/or as a statutory heir of the Estate of Isbay R. Lewis, III, Deceased; Joseph D. Lewis, Jr.; Michael Lewis; Samuel Lewis; James L. Lilley; Theresa Lloyd, as Personal Representative and/or as a statutory heir of the Estate of Johnnie Lloyd, Deceased; Earl Love, Jr.; Junius L. Lyons; Glen Marburger; Arnold Diaz Mares; Julian Martinez, Jr.; Victor Mathis; Wilber L. Mathis, Sr.; Lynette Lanear, as Personal Representative and/or as a statutory heir of the Estate of Alexander Mathews, Deceased; Charles E. Matthews; Clarence Mathews, Jr.; Clarence Mathews, Jr., as Personal Representative and/or as a statutory heir of the Estate of Clarence Mathews., Sr., Deceased; Jessie Mayes, Sr.; Wilbert McGilber; John E. McGowan; Lonzo McGrew; Ronald L. McGuire; Billy Ray McKenzie; Ralph E. McKinley; Arthur McKnight; Theodore R. McKnight; Carl Meier; Arvin Mitchell; Ronald J. Morale; Johnny R. Morales, Jr.; Ernesto T. Moreno; Juan F. Moreno; Wayne Moten, Sr.; Charles E. Nash; Charles E. Neal; Merida Newsome; Edward Nixon; Talbert M. North, Jr.; Jose Favian M. Ortjz; Anthony W. Page; A. B. Page; James E. Page; Percy Page; Richard A. Parker; Bobby E. Pelmore; Juan M. Pena; Milton Petties; Rodney C. Pitre; David R. Potter; Frances Prince, as Personal Representative and/or as

a statutory heir of the Estate of Earnest Prince, Deceased; Larry W. Prince; Donald G. Quarles, Sr.; Thomas L. Quarles; Elyne Rackel, as Personal Representative and/or as a statutory heir of the Estate of Elmo E. Rackel, Deceased; Jimmy D. Ray; Douglas B. Reynolds; Bonnie Richards, as Personal Representative and/or as a statutory heir of the Estate of James Richards, Deceased; Dwight B. Richardson; Eugene C. Richardson; Lindall Roark; Jackie C. Robertson; Ignacio Rodriguez; Elmer T. Rogerson; Frances Ross, as Personal Representative and/or as a statutory heir of the Estate of Albert Ross, Deceased; Reberto S. Saldivar; Raymond C. Sauceda; James Savoie; Leon P. Savoy; Douglas W. Scott; Don E. Simmang; Leon Singleton; Elvin Skinner; Gregory H. Smith; Sydney Smith, Jr.; Willie F. Smith, Sr.; Federico Soto, Sr.; Carlton J. Soularie; Cloussy J. Soularie, Jr.; Cloussy Soularie., Sr.; Clarence L. Spann; Ardis Stanley; Anthony W. Stephens; Ricky Stephens; Jerry W. Stickman; Clifford R. Stoot; George Tate; Raymond Tate; Wardell Taylor; Joseph L. Thibodeaux; John H. Thompson; Robert Thompson, Jr.; Michael R. Tillmon, Antonio Torres, Jr.; Alfredo D. Tovar; Richard Tunwar; Kenneth R. Tuttle; Curtis Vanschoubroek; Lois M. Walker, as Personal Representative and/or as a statutory heir of the Estate of British L. Walker, Sr., Deceased; Carolyn Walker, as Personal Representative and/or as a statutory heir of the Estate of Jack P. Walker, Deceased; Jessie Walker, Jr.; Wilburn R. Wallace; Lena Johnson, as Personal Representative and/or as a statutory heir of the Estate of Clifton Washington, Deceased; Lavern Washington; Charles B. Weatherspoon; Jessie James

Weeks; Charlotte Currie, as Personal Representative and/or as a statutory heir of the Estate of Richard D. Whisenant, Deceased; Stanley Whitaker; Al J. Williams; Earl H. Williams; Ivory Williams; John H. Williams; Joseph E. Williams; Alfreda Levine-Williams, as Personal Representative and/or as a statutory heir of the Estate of Ronald J, Williams, Deceased; Wallace Williams; Walter Williams, III; Willie D. Williams; Clarence A. Willis; Charles Willridge; M. T. Wilson, Jr.; Clarence J. Wiltz; Cherie Winfrey, as Personal Representative and/or as a statutory heir of the Estate of Clifford Winfrey, Deceased; Arnett Wrencher; Clifton Wyatt, Sr.; Tilman Zackery, Jr.; Joe D. Zamora; and Clarence Zenon, Jr.

APPENDIX B

Affirmed and Opinion filed June 28, 2007.

In The
Fourteenth Court of Appeals

NO. 14-06-00419-CV

CLARENCE ABRAHAM, ET AL., Appellants
V.
UNION PACIFIC RAILROAD COMPANY

On Appeal from the 295th District Court
Harris County, Texas
Trial Court Cause No. 2000-38069

OPINION

Appellants, 293 former and current employees of Union Pacific Railroad Company,[1] appeal a summary judgment in favor of Union Pacific. In a single issue, appellants argue that their medical causation evidence was sufficient to overcome appellee's motion for summary judgment. We affirm.

[1] Appellants' full names are listed in an appendix to this opinion.

I. BACKGROUND

Appellants filed a toxic tort suit under the Federal Employers Liability Act ("FELA") alleging that exposure to creosote used in the treatment of railroad ties caused appellants to suffer diseases of the throat, lungs, and skin including cancer. *See* 45 U.S.C. §§ 51-70. The trial court set a trial date for a "test plaintiff," Leslie Duncan. Mr. Duncan worked at Houston Wood Preserving Works where he loaded treated railroad cross-ties onto railroad cars. Medical records indicate that Mr. Duncan smoked cigarettes and regularly drank a moderate amount of alcohol. Mr. Duncan died from throat and lung cancers in 2002.

After appellants produced the affidavit of their medical expert, Dr. James Dahlgren, appellee filed a motion for summary judgment on both traditional and no evidence grounds. Appellee based its motion on the ground that Dr. Dahlgren's affidavit was no evidence of causation because it did not contain scientifically reliable and legally sufficient expert evidence. The trial court granted summary judgment in favor of appellee against Mr. Duncan. Almost a year later, appellee filed a motion for summary judgment against the remaining appellants. The trial court subsequently granted summary judgment against all appellants.

II. STANDARD OF REVIEW

A no evidence motion for summary judgment must be granted if: (1) the moving party asserts that there is no evidence of one or more specified elements of a claim or defense on which the adverse party would have the burden of proof at trial; and (2) the respondent produces no summary judgment evidence raising a genuine issue of material facts on those elements. *See* TEX.R.CIV.P. 166a(I). In reviewing a no evidence summary judgment, we review the record in the light most favorable to the nonmovant to determine whether more than a scintilla of evidence was presented on the challenged elements of the nonmovant's claim. *See Wal-Mart Stores, Inc. v. Rodriguez*, 92 S.W.3d 502, 506 (Tex. 2002). When a trial court's order granting a no evidence summary judgment does not specify the ground relied upon for its ruling, the summary judgment will be affirmed if any of the theories advanced is meritorious. *Dow Chem. Co. v. Francis*, 46 S.W.3d 237, 242 (Tex. 2001).

A party may object to the reliability of expert testimony either before trial or when it is offered. *See Guadalupe-Blanco River Auth. v. Kraft*, 77 S.W.3d 805, 807 (Tex. 2002). Once such an objection is made, the burden is on the proponent of the evidence to establish its reliability. *Id.* A trial court's decision whether to admit expert testimony is reviewed for abuse of discretion. *Id.* In addition to being a determinant of the admissibility of such evidence, the reliability of expert testimony is also a prerequisite to its legal sufficiency. *See Merrell Dow Pharms. v. Havner*, 935 S.W.2d 706, 714 (Tex. 1997). In the

context of a motion for summary judgment where, as here, expert evidence relied on by the nonmovant is objected to by the movant based on reliability, the evidence must be both admissible and legally sufficient to withstand the no evidence challenge. *See Frias v. Atlantic Richfield Co.,* 104 S.W.3d 925, 928 n.2 (Tex. App. --- Houston [14th Dist.] 2003, no pet.).

III. CAUSATION

A. The FELA Causation Standard

Under FELA, every railroad engaging in interstate commerce is liable in damages to any employee injured during his employment when such injury results in whole or in part from the railroad's negligence or by reason of any defect or insufficiency due to its negligence. *See* 45 U.S.C. § 51 (1988). Plaintiffs must prove the common-law elements of negligence, duty, breach, foreseeability and cause-in-fact; however, under FELA, the plaintiff carries only a slight burden on causation. *Union Pac.R.R. Co. v. Williams,* 85 S.W.3d 162, 168 (Tex. 2002). Accordingly, the test of causation is whether the proof justifies, within reason, the conclusion that employer negligence played any party, even the slightest, in producing the injury or death for which the claimant seeks damages. *Rogers v. Missouri Pacific Ry.,* 352 U.S. 500, 507, 77 S.Ct. 443, 449, 1 L.Ed. 493 (1957).

B. Necessity of Expert Testimony

Despite the lower burden under FELA, a plaintiff still bears the burden of presenting evidence from

which a jury could conclude the existence of a probable or likely causal relationship as opposed to merely a possible one. *Edmons v. Illinois Cent. Gulf R;.R.Co.*, 910 F.2d 1284, 1288 (5th Cir. 1990). The causal link between an event sued upon and the plaintiff's injuries must be shown by competent evidence. *Morgan v. Compugraphic Corp.*, 675 S.W.2d 729, 731 (Tex. 1984). Lay testimony will suffice when general experience and common sense will enable a lay person fairly to determine the causal connection. *Praytor v. Ford Motor Co.*, 97 S.W.3d 237, 241 (Tex. App.---Houston [14th Dist.] 2002, no pet.). The existence of a causal connection between exposure to a certain chemical and injury or disease requires specialized expert knowledge and testimony because such matters are not within the common knowledge of lay persons. *Pilgrim's Pride Corp. v. Smoak*, 134 S.W.3d 880, 893 (Tex. App.---Texarkana 2004, pet. denied). Therefore, in this case in which the plaintiffs have alleged that exposure to creosote caused their diseases, expert testimony is required to enable lay persons to determine whether the exposure caused the disease.

C. Reliability of Expert Testimony

Despite the fact that appellants assert a claim under the federal statute, the trial court must follow state procedure in determining the reliability of expert testimony. *See Maritime Overseas Corp. v. Ellis*, 971 S.W.2d 402, 406 (Tex. 1998). To be admissible into evidence, an expert's testimony must, among other things, be reliable. *E.I. Dupont de Nemours and Co. v. Robinson*, 923 S.W.2d 549, 565

(Tex. 1995). In *Robinson*, the Texas Supreme Court set forth a two-part test governing the admissibility of expert testimony: (1) the expert must be qualified; and (2) the testimony must be relevant and be based on a reliable foundation. *Id.* at 556. Expert testimony is unreliable if: (1) it is not grounded in the methods and procedures of science and is thus no more than subjective belief or unsupported speculation; or (2) there is too great an analytical gap between the data upon which the expert relies and the opinion he offers. *Cooper Tire & Rubber Co. v. Mendez*m, 204 S.W.3d 797, 800 (Tex. 2006). The purpose of the reliability determination is not to decide whether the expert's conclusions are correct, but only whether the analysis used to reach them is reliable. *Exxon Pipeline Co. v. Zwahr*, 88 S.W.3d 632, 629 (Tex. 2002).

D. Expert Testimony under the FELA Causation Standard

1. Federal Authority

Appellants rely on *Hines v. Conrail Corp.*, 926 F.2d 262 (3rd Cir. 1991), to validate their expert's testimony. In that opinion, the Third Circuit opined that causation under FELA is broadly interpreted and that "a medical expert can testify that there was more than one potential cause of plaintiff's condition." *Id.* at 268. The court further concluded that a trial court is justified in withdrawing issues from the jury's consideration only in those rare instances where there is a zero probability either of employer negligence or that any such negligence contributed to

the injury of the employee. *Id.*, citing *Pehowic v. Erie L.R.R.*,, 430 F.2d 697, 699-700 (3rd Cir. 1970). The *Hines* court found that by enacting FELA, Congress desired to "secure jury determinations in a larger proportion of cases than would be true of ordinary common law actions." 926 F.2d at 269, quoting *Boeing Co. v. Shipman,* 411 F.2d 365, 371 (5th Cir. 1969), *overruled on other grounds, Gautreaux v. Scurlock Marine, Inc.*, 107 F.3d 331, 336 (5th Cir. 1997). The court further held that the standard of causation under FELA can significantly influence a determination of the admissibility of an expert's testimony. 926 F.2d ate 269. Thus, the court in *Hines* found that FELA's liberal standard of causation required the admission of evidence that might have been excluded in a non-FELA case. *See id.*

Two years after *Hines*, the Supreme Court issued *Daubert v. Merrell Dow Pharms., Inc.,* 509 U.S. 579, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993), regarding the reliability of expert testimony. In *Robinson*, the Texas Supreme Court adopted the *Daubert* standards for assessing the reliability of expert testimony. 923 S.W.2d at 557. Several federal courts have addressed the tension between the *Daubert / Robinson* standard of admission of expert testimony and the FELA standard of causation for submission of a case to a jury. Those courts have found that the standard of causation under FELA and the standards of admission of expert testimony under the rules of evidence are distinct issues and do not affect each other. *See In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 743 (3rd Cir. 1994); *Claar v. Burlington Northern*

R.R. Co., 29 F.3d 499, 503 (9th Cir. 1994); *In re Conrail Toxic Tort Fela Litig.*, No. CIV. A94-11J, Civ.A 94-4J, 1998 WL 465897 (W.D. Pa. Aug. 4, 1998) (not release for publication).

The lower burden under FELA does not mean that, in FELA cases, courts mut permit expert testimony that would not be admissible in other contexts. *Claar*, 29 F.3d at 503. Despite the lower causation standard under FELA, plaintiffs must still demonstrate some causal connection between a defendant's negligence and their injuries. *Maynew v. Bell S.S. Co.*, 917 F.2d 961, 964 (6th Cir. 1990); *Edmonds*, 910 F.2d at 1288. In a FELA case, the *Daubert / Robinson* standard of admissibility extends to each step in an expert's analysis all the way through the step that connects the work of the expert to the particular case. *In re Paoli*, 35 F.3d at 743. As long as a FELA plaintiff's expert present scientifically reliable evidence that the toxic exposure could have played some role, however, small, in causing the plaintiff's injuries, the testimony should be admitted under the FELA standard. *Savage v. Union Pac. R.R. Co.*, 67 F.Supp.2d 1021, 1028 (E.D. Arkansas 1999).

2. State Authority

At least two Texas Courts of Appeal have addressed the issue of the application of *Robinson* and *Havner* to the relaxed FELA causation standard. *See Missouri Pac. R.R. Co. v. Navarro*, 90 S.W.3d 747, 750-51 (Tex. App.---Houston [1st Dist.] 2002, pet.

denied).[2] In *Navarro*, the San Antonio Court of Appeals, recognizing FELA's "featherweight" burden of proof, distinguished the concepts of burden of proof from admissibility of evidence. It held that the lower FELA burden "has not been generally applied to the admissibility of expert testimony." *Naarro,* 90 S.W.3d at 751. This conceptual distinction is described as follows: "In [a] FELA case, the *Daubert* standard of admissibility of expert evidence 'extends to each step in an expert's analysis al the way through the step that connects the work of the expert to the particular case.'" *Id.*

In *Anderson*, the First Circuit Court of Appeals also addressed the admissibility of expert testimony under the "featherweight" causation standard. In that case, the court held that the causation standard under FELA and the Jones Act cannot transform no evidence into some evidence. *Id.* at 610. The majority opinion noted that in determining admissibility of expert testimony, the proper focus is not on the causation burden of proof, but on whether the expert opinion testimony is reliable "in the first place." *Id.* Therefore, if the expert testimony is unreliable under *Havner* and *Robinson*, it is no evidence, "not even a feather's weight." *Id.*

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[2] *Andersoni* was a case brought under the Jones Act, which expressly incorporates the relaxed FELA causation standard. *See American Dredging Co. v. Miller,* 510 U.S. 443, 456, 114 S.Ct. 981, 127 L.Ed.2d 285 (1994); *Offshore Pipelines, Inc. v. Schooley*, 984 S.W.2d 654, 657 (Tex. App.—Houston [1st Dist.] 1998, no pet.).

Appellants contend that the trial court improperly applied *Havner* to require a higher level of scientific proof than is required in FELA cases. They partially rely on the *Navarro* concurrence, in which one justice lamented that the precedent the courts of appeals must follow fails to consider the special burden of proof that a plaintiff must bear in a FELA action. We note that the primary case cited in the concurrence, *Hines*, was decided before *Daubert* and *Robinson*, that is to say, before the establishment of standards for admissibility of expert testimony. Therefore, we do not find *Hines* to be persuasive. Moreover, the accepted distinction between burden of proof and admissibility of evidence defeats appellant's argument that we are improperly applying *Havner*.

E. Does Dr. Dahlgren's Opinion Present Scientifically Reliable Evidence that Appellants' Exposure to Creosote Played Some Role in Causing Their Injuries?

In his affidavit, Dr. Dahlgren states that he is a medical doctor with board certification in internal medicine and has over thirty years' experience in occupational and environmental toxicology. He is of the opinion that Mr. Duncan's throat and lung cancers were caused by exposure to coal tar creosote while working at appellee's wood treatment plant. Dr. Dahlgren states he based his opinion on coal tar and creosote studies both substances contain polycyclic aromatic hydrocarbons (PAHs) in different concentrations. He relied on scientific and medical literature revealing that cigarette smoke contains PAHs and that cigarette smokers are at risk for

throat and lung cancer due to PAH exposure.

Dr. Dahlgren reviewed the medical records of all plaintiffs, the health records of nearly all of the plaintiffs, each of the plaintiffs' answers to interrogatories, and the depositions of those plaintiffs that were taken. Dr. Dahlgren opined:

> Assuming regular daily exposure to the creosote material on the skin and through breathing the vapors of at least the equivalent of one work year, the above-referenced evidence together supports my opinion that plaintiffs' claimed cancers and non-malignant respiratory, skin, and neurological diseases were caused at least in part by their chronic exposure to the toxic creosote. It is my professional opinion that plaintiffs' claimed cancers and non-malignant respiratory, skin, and neurological diseases were caused at least in part by their chronic exposure to the toxic creosote.

Dr. Dahlgren concluded that, "[t]he evidence that coal tar creosote is a carcinogen is not ambiguous. No serious scientist would question that the main ingredient in creosote (PAHs) are [sic] carcinogenic." Dr. Dahlgren specifically relied on studies conducted by the Environmental Protection Agency ("EPA"), the National Creosote Council, he United States Agency for Toxic Substances and Disease Registry ("ATSDR"), the National Institute of Safety and Health ("NIOSH"), and the International Agency for Research on Cancer ("IARC"). Dr. Dahlgren further reviewed epidemiological studies published in the

Scandinavian Journal of Workers and Environmental Health and the Journal of Occupational Health. Finally, Dr. Dahlgren further relied on his own study conducted on residents living next to a wood treatment plant.

Appellee contends that Dr. Dahlgren's causation opinion is flawed because he did ot demonstrate knowledge as to the amount of exposure each of the plaintiffs had to creosote. Knowledge of the extent of exposure to a potentially harmful substance is essential to any reliable expert opinion that the particular substances caused a disease. *See Savage,* 67 F.Supp.2d at 1031. To carry the burden of proving a plaintiff's injury was caused by exposure to a specific substance, the plaintiff must demonstrate the levels of exposure hazardous to human beings generally as well as the plaintiff's actual level of exposure. Austin v. Kerr-McGee Refining Corp., 25 S.W.3d 280, 292 (Tex.App.–Texarkana 2000, no pet.).

In attempting to determine specific exposure levels, Dr. Dahlgren referred to the Creosote Council Study of 2001 and the 2003 EPA document. The Council study was conducted to determine the exposure to creosote of workers applying creosote end use products to wood poles nd railroad ties. The test subjects were divided into treatment plant job categories. Creosote skin and inhalation exposure was measured based on an eight-hour work day by plant worker category. The EPA relied on the exposure data in the Creosote Council report. The EPA report stated that the EPA determined there are potential exposures to mixers, loaders, applicators,

and other handlers during typical use-patterns associated with creosote and from use in commercial and industrial settings. The EPA reported that "Creosote is created as a B1 probable human carcinogen based on limited evidence of the association between occupational creosote contact and subsequent tumor formation." The EPA concluded that, "Cancer risks for all handler scenarios exceed the level of concern . . . for occupational handlers."

In his deposition, Dr. Dahlgren testified that he could extrapolate from those studies the level of exposure for the plaintiffs in this lawsuit. Dr. Dahlgren testified as follows:

> Q. So in determining exposure levels, you referred to the 2003 EPA document when forming your — when determining what the exposure levels were for the Abraham plaintiffs?
>
> A. Yes. We can —
>
> *****
>
> [Dr. Dahlgren]: We can extrapolate from those studies to what was going on with the workers in this Houston wood treatment plant that are the subject of this lawsuit.
>
> Q. And did you perform an extrapolation from the 2003 EPA document?

*****

Q. — that you conducted?

[Dr. Dahlgren]: I didn't take any notes.

Q. What type of extrapolation did you perform?

A. I've already stated that we looked at those — the paper published by — or the EPA document which reflects the Creosote Council study, and we compared the results of those studies to our workers.

And the way we did that is by pointing out the deposition testimony where they describe their exposures as becoming wet with creosote on their clothing, touching the creosote freshly treated wood, touching the actual creosote oil, getting it on their person, breathing the vapors from the exposures. All of those things reflect a dose of exposure that those people had.

And in terms of quantifying it, we can say that the Creosote Council study would have been similar.

But as I also modified, they probably had higher exposures in the workers subject to this study than were even reflected in the Creosote Council studies because of what they stated in their study, which is that exposures these days are lower than they would have been in prior decades.

Even if the EPA study coupled with the Creosote Council study and the other studies reviewed by Dr. Dahlgren could be considered reliable evidence that creosote exposure at certain levels causes disease in human beings generally, appellants have not produced reliable evidence that they were exposed to those levels of creosote. The EPA study found an increased risk of cancer for all workers categorized as "handlers"[3] The study did not address office personnel and workers in non-treating areas because the Creosote Council found that those workers "are far less likely to be exposed to creosote than are those workers who were directly involved in the treatment process." Appellants have presented no evidence as to which plaintiffs may fall into certain worker categories.

Appellants prepared a chart listing each of the plaintiffs, their age, level of exposure, illness summary, and illness category. Under the column entitled, "Exposure Rating," each individual's exposure is given a value of low, medium, or high, and his or her years of employment with the railroad company are listed. No job categories are listed in the chart. Appellants contend that in preparing the chart Dr. Cahlgren reviewed the plaintiffs' interrogatories and used their job categories to extrapolate the level of exposure. However, Dr.

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[3] A governmental agency finding that exposure to a substances increases the risk of disease cannot generally be considered as reliable evidence of causation in a tort case. *See Exxon Corp. v. Makofski,* 116 S.W.3d 176, 188 (Tex.App.—Houston [14th Dist.] 2003, pet.denied).

Dahlgren admitted he took no notes of this extrapolation. Appellants did not attach the interrogatories or depositions to their response to motion for summary judgment in the trial court. Therefore, appellants produced no evidence from which the trial court could determine whether appellants were exposed to similar levels of creosote that led the EPA to find an creased risk of disease.

A plaintiff must prove the level of exposure using techniques subject to objective, independent validation in the scientific community. *See Moore v. Ashland Chemical, Inc.,* 151 F.3d 269, 276 (5th Cir. 1998). Scientific knowledge of the harmful level of exposure to a chemical plus knowledge that the plaintiffs were exposed to such quantities are minimal facts necessary to sustain the plaintiffs' burden in a toxic tort case. *Allen v. Pennsylvania Engineering Corp.*, 102 F.3d 194, 199 (5th Cir. 1996). Appellants need not produce a mathematically precise table equating levels of exposure with levels of harm to show that they were exposed to toxic levels of creosote, but they must produce evidence from which a reasonable person could conclude that their exposure probably caused their injuries. *See Bonner v. ISP Technologies, Inc.,* 259 F.3d 924, 928 (8th Cir. 2001). Appellants must show that they were exposed to creosote and that their exposure was equal to or greater than the exposure in the studies on which they rely. *Navarro*, 90 S.W.3d at 755-56.

In *Navarro*, the plaintiff's expert, as in this case, based calculations of exposure on job categories. *Id.* At 756. In that case, the expert relied on only one

study that classified each job category with specific numerical values of exposure to diesel exhaust. *Id.* The court found that the expert's testimony was not liable because he used measurements different from those used in the study and he compared the plaintiff's exposure level to those of workers in the study who held different jobs than the plaintiff. *Id.*

In this case, as in Navarro, the plaintiffs' expert relied on only one study that classified job categories and the level of exposure that correlated with each job category. Unlike the expert in Navarro, however, Dr. Dahlgren did not provide the trial court with the information it needed to test his opinions. Dr. Dahlgren did not, in his affidavit, or in his deposition, correlate the plaintiffs with the job categories listed in the EPA study. Dr. Dahlgren merely assigns each plaintiff an exposure rating based on length of employment. We can find no evidence of whether each of the 293 plaintiffs were clerical workers, mixers, loaders, applicators, etc. Even assuming this to be the most precise conclusion that c an be drawn from the limited data available, such indefinite measurements of exposure are subject to a wide variance and largely open to speculation.

Appellants rely on the Fourth Circuit's opinion in *Westberry v. Gislaved Gummi AB*, 178 F.3d 257 (4th Cir. 1999) for the proposition that specific exposure levels are not required for a reliable expert medical causation opinion. The expert in that case relied on a differential diagnosis to opine that the plaintiff's exposure to airborne talc caused the aggravation of a pre-existing sinus condition. The defendant moved to

exclude the opinion because the expert "had no means of assessing what level of exposure was adequate to produce the sinus irritation *Westberry* experienced." *Id.* at 263. The court rejected the defendant's argument based on the plaintiff's testimony that he was exposed to very high levels of talc. *Id.* At 264. The plaintiff in *Westberry* testified that when he removed gaskets from shipping boxes, the gaskets, which were black, had so much talc on them that they appeared to be white or gray. Talc was released into the air as he worked with the gaskets; at the close of the workday, plaintiff was required to blow off his work area, stirring up all the talc that had fallen during the day. *Id.* The Court found this testimony was sufficient to permit the trial court to conclude that the plaintiff was exposed to high levels of airborne talc. *Id.*

Unlike the plaintiff in *Westberry*, the plaintiffs in this case have not produced sufficient evidence of their levels of exposure. Appellants argue they presented similar evidence in their depositions when they describe their exposures as "becoming wet with creosote on their clothing, touching the creosote freshly treated wood, touching the actual creosote oil, getting it on their person, breathing the vapors from the exposures." In. Dr. Dahlgren's opinion, all the plaintiffs had "prolonged" exposure over a period of at least one year. However, plaintiffs have produced no scientific data showing that the extent and nature of their creosote exposure is the same or similar to the exposure necessary to promote the development of disease. For this reason, Dr. Dahlgren's opinions do not meet the reliability standards under *Daubert* and

Robinson.

Considering the evidence in a light most favorable to appellants, we find they have failed to produce evidence that their exposure was equal to or greater than the exposure in the studies on which they rely. There is no reliable scientific evidence to connect appellants' exposure to creosote to appellants' injuries other than the unsupported assertion of Dr. Dahlgren. Appellants' evidence, therefore, cannot withstand appellee's no-evidence challenge.

Accordingly, the judgment of the trial court is affirmed.

/*s*/ Adele Hedges
Chief Justice

Judgment rendered and Opinion filed June 28, 2007.

Panel consists of Chief Justice Hedges and Justices Hudson and Edelman.

APPENDIX

LIST OF APPELLANTS

Clarence Abraham; Delois Abraham, as Personal Representative and/or as a statutory heir of the Estate of Dalton Ahraham, Deceased; Milton J. Abraham; Alvin Alexander; Caffery Alexander; Cliffton J. Alexander; Clovis Alexander; Ernest Alexander; Ernest J. Alexander; Lionel J. Alexander; Melton Alexander; Norris Alexander, Patrick Alexander; Russell J. Alexander; Shelton Alexander; Wilbert J. Alexander; Paul J. Alfred; Gabriel Almeida; Domingo Alonso; Leo D. Anderson; Olivia Anderson, as Personal Representative and/or as a statutory heir of the Estate of Orise Anderson, Deceased; Charles Arceneaux, as Personal Representative and/or as a statutory heir of the Estate of Wilton J. Arceneaux, Deceased; Charles Arceneaux; Stanford Archie; John W. Arnold Jr.; Freddie L. Arthur; Michael E.Artzt; Helen Mack, as Personal Representative and/or as a statutory heir of the Estate of Willie Austin, Deceased; Danny Baisey; Leroy J. Baptiste; Carroll J. Barber; Darrell Barber; Harold Barber, Jr., as Personal Representative and/or as a statutory heir of the Estate of Harold Barber, Decased; Ronald Bass; Herbert Batiste; Jewel Bennett; Jacqueline Y. Bernard; Harvey Black; Horace G. Black; Louis C. Black; Franck C. Blake; Nolton J. Blanchart; Mildred Bland, as Personal Representative and/or as statutory heir of the Estate of Vernon Bland, Deceased; Jessie Blanton, Jr.; Rodney D. Blanton; Acy Bluford, Jr., Joseph H. Bonin; Jimmy Boykin; Vicki Lounge, as Personal

Representative and/or as a statutory heir of the Estate of Thomas B. Brannon, Deceased; William R. Brazzil; Marvin Britton; Eugene Brown; Ronald Brown; Leslie Bryan; Curtis Bryant; Richard C. Bryant; Keith A. Burley; Fred A. Burton; Lloyd D. Busby, Christopher A. Bush, Berbert Bushnell, as Personal Representative and/or as a statutory heir of the Estate of Edwin Bushnell, Deceased; Herbert Bushnell; Dean Bullera; Lee R. Calais; August R. Caldwell; Sorney Calvert; Alfonso Cardenas, Jr., Charles Camouche; Rafael Casanova, Jr.; Rudolph Castaneda; Clarence Celestine; Kenneth Charles; Michael A. Charles, Anna M. Charles, as Personal Representative and/or as a statutory heir of the Estate of Russell E. Charles, Sr., Deceased; John F. Citizen; Jerome Clark; William M. Coleman; Johnnie W. Colvin; Phillip Comeaux, Robert Comeaux, Alton Cormier; Delbert Courtney; Bernard Cramer; Elton Crawford, as Personal Representative and/or as a statutory heir of the Estate of Alton Crawford, Deceased; Elton Crawford; John D. Cross; Stephanie M. Currie; Leonard Curry; Darryl Davis; Willie P. Davis; Jamesetta Davis, as Personal Representative and/or as a statutory heir of the Estate of Albert Davis, Sr., Deceased; Robert J. Deese; Charles E. Dennis; Joseph Derouselle; Eugene Drain; Paul Dumas, Jr.; Mary Duncan, as Personal Representative and/or as a statutory heir of the Estate of Leslie Duncan, Deceased; Diane Eaglin, as Personal Representative and/or as a statutory heir of the Estate of Robert Eaglin, Deceased; Earl Ellis, as Personal Representative and/or as a statutory heir of the Estate of Leroy J. Ellis, Jr.; Earl J. Ellis, Robert D. Ervin; Guadalupe Escochea, Jr.; Daley Etienne;

Alfred D. Fields; Rita Filmore, as Personal Representative and/or as a statutory heir of the Estate of Sterling Filmore, Deceased; Reginald B. Fitzgerald; W. G. Foehr; Bobbie Martin, as Personal Representative and/or as a statutory heir of the Estate of Raymond L. Ford, Deceased; Manuel Fraga; Harold J. Francis, Carlton Franklin, as Personal Representative and/or as a statutory heir of the Estate of George Franklin, Deceased; Ted Frazier, as Personal Representative and/or as a statutory heir of the Estate of John Frazier, Deceased; Rodney Freeman; Oliver R. Galloway; Eddie B. Garcia; Jose B. Garcia; Samuel Gardner; Donald R. Gilder; David Gipson; Alma Gobar, as Personal Representative and/or as a statutory heir of the Estate of Whitney Gobar, Deceased; Joseph C. Gollub; Vincente Gomez; Leonard Green; Paul Green; Jose Guerra; Clifton J. Gulliory; Felipe Gusman; Joseph Hall, Jr.; Deborah Harris, as Personal Representative and/or as a statutory heir of the Estate of Fredrick Harris, Deceased; Brenda J. Hawkins, as Personal Representative and/or as a statutory heir of the Estate of Nathaniel W. Hawkins, Deceased; Melvin R. Hayward; Candelario Hernandez; John E. Hollie, Jr.; Mary K. Hooper, as Personal Representative and/or as a statutory heir of the Estate of E. D. Hooper, Deceased; Kenneth W. Hope, Sr.; Shelton D. Hope; Hoover L. Hughes; Ronald W. Hunter; Glen Hutchison; John Paul Jackson; Lester Janice; Joseph Janice, as Personal Representative and/or as a statutory heir of the Estate of Toney Janice, Deceased; Donnie Jefferson; Roy Jefferson; Bennie E. Johnson; Bernard Johnson; Donald S. Johnson; Jimmy Johnson; Johnny E. Johnson; Larry Johnson;

Robert Johnson, Jr.; Robert H. Johnson; Ronnie Johnson; Wallace Johnson; Gilbert J. Jones, Joseph C. Jones; Larry Jones, McAlvin Jones; Willie Jones; Robert W. Joseph, Sr., Charles E. Jr.; Marion R. Kalinwski; Donald R. Keglea; Billy Ray King, Weldon C. King, Jr.; Joseph A. Landry; Andrew H. Law; Otilia LeBlanc, as Personal Representative and/or as a statutory heir of the Estate of Joseph W, LeBlanc, Deceased; Earl R. Lewis; Angela Rucks, as Personal Representative and/or as a statutory heir of the Estate of Isbay R. Lewis, III, Deceased; Joseph D. Lewis, Jr.; Michael Lewis; Samuel Lewis; James L. Lilley; Theresa Lloyd, as Personal Representative and/or as a statutory heir of the Estate of Johnnie Lloyd, Deceased; Earl Love, Jr.; Junius L. Lyons; Glen Marburger; Arnold Diaz Mares; Julian Martinez, Jr.; Victor Mathis; Wilber L. Mathis, Sr.; Lynette Lanear, as Personal Representative and/or as a statutory heir of the Estate of Alexander Mathews, Deceased; Charles E. Matthews; Clarence Mathews, Jr.; Clarence Mathews, Jr., as Personal Representative and/or as a statutory heir of the Estate of Clarence Mathews., Sr., Deceased; Jessie Mayes, Sr.; Wilbert McGilber; John E. McGowan; Lonzo McGrew; Ronald L. MaGuire; Billy Ray McKenzie; Ralph E. McKinley; Arthur McKnight; Theodore R. McKnight; Carl Meier; Arvin Mitchell; Ronald J. Morale; John R. Morales, Jr.; Ernesto T. Moreno; Juan F. Moreno; Wayne Moten, Sr.; Charles E. Nash; Charles E. Neal; Merida Newsome; Edward Nixon; Talbert M. North, Jr.; Jose Favian M. Ortjz; Anthony W. Page; A.B. Page; James E. Page; Percy Page; Richard A. Parker; Bobby E. Pelmore; Juan M. Pena; Milton Petties; Rodney C. Pitre; David R.

Potter; Frances Prince, as Personal Representative and/or as a statutory heir of the Estate of Earnest Prince, Deceased; Larry W. Prince; Donald G. Quarles, Sr.; Thomas L. Quarles; Elyne Rackel, as Personal Representative and/or as a statutory heir of the Estate of Elmo E. Rackel, Deceased; Jimmy D. Ray; Douglas B. Reynolds; Bonnie Richards, as Personal Representative and/or as a statutory heir of the Estate of James Richards, Deceased; Dwight B. Richardson; Eugene C. Richardson; Lindall Roark; Jackie C. Robertson; Ignacio Rodriguez; Elmer T. Rogerson; Frances Ross, as Personal Representative and/or as a statutory heir of the Estate of Albert Ross, Deceased; Reberto S. Saldivar; Raymond C. Sauceda; James Savoie; Leon P. Savoy; Douglas W. Scott; Don E. Simmang; Leon Singleton; Elvin Skinner; Gregory J. Smith; Sydney Smith, Jr.; Willie F. Smith, Sr.; Federico Soto, Sr.; Carlton J. Soularie; Cloussy J. Soularie, Jr.; Cloussy Soularie., Sr.; Clarence L. Spann; Ardis Stanley; Anthony W. Stephens; Ricky Stephens; Jerry W. Stickman; Clifford R. Stoot; George Tate; Raymond Tate; Wardell Taylor; Joseph L. Thibodeaux; John H. Thompson; Robert Thompson, Jr.; Michael R. Tillmon, Anthony Torres, Jr.; Alfredo D. Tovar; Richard Tunwar; Kenneth R. Tuttle; Curtis Vanschoubroek; Lois M. Walker, as Personal Representative and/or as a statutory heir of the Estate of British L. Walker, Sr., Deceased; Carolyn Walker, as Personal Representative and/or as a statutory heir of the Estate of Jack P. Walker, Deceased; Jessie Walker, Jr.; Wilburn R. Wallace; Lena Johnson, as Personal Representative and/or as statutory heir of the Estate of Clifton Washington,

Deceased; Lavern Washington; Charles B. Weatherspoon; Jessie James Weeks; Charlotte Currie, as Personal Representative and/or as a statutory heir of the Estate of Richard D. Whitsenant, Deceased; Stanley Whitaker; Al J. Williams; Earl H. Williams; Ivory Williams; John H. Williams; Joseph E. Williams; Alfreda Levine-Williams, as Personal Representative and/or as a statutory heir of the Estate of Ronald J, Williams, Deceased; Wallace Williams; Walter Williams, III; Willie D. Williams; Clarence A. Willis; Charles Willridge; M. T. Wilson, Jr.; Clarence J. Wiltz; Cherie Winfrey, as Personal Representative and/or as a statutory heir of the Estate of Clifford Winfrey, Deceased; Arnett Wrencher; Clifton Wyatt, Sr.; Tilman Zackery, Jr.; Joe D. Zamora; and Clarence Zenon, Jr.

APPENDIX C

Fourteenth Court of Appeals
1307 San Jacinto, 11th Floor
Houston, Texas 77002

United States Postage Seal
Thursday, August 23, 2007
02 1A Pitney Bowes $00.26
0004613232 Aug 23 2007
MAILED FROM ZIP CODE 77002

RE: Case No. 14-06-00419-CV

Style: Clarence Abraham, Et Al
v. Union Pacific Railroad Co.

C-1

Please be advised that on this date, the Court **OVERRULED** motion for en banc consideration in the above cause.

T. C. Case # 00-38068

Ed Wells, Clerk

RICHARD P. KINNAN
10100 SANTA MONICA BOULEVARD
16TH FLOOR
LOS ANGELES CA 90067

APPENDIX D

OFFICIAL NOTICE FROM
SUPREME COURT OF TEXAS
Post Office Box 12248
Austin, Texas 78711-2248

United States Postage Seal
38068 Date: 11/30/2007
02 1A Pitney Bowes $00.26
0004392386 Nov 30 2007
MAILED FROM ZIP CODE 78701

RE: Case No. 07-0810
COA #: 14-06-00419-CV

STYLE: CLARENCE ABRAHAM, ET AL.
v. UNION PACIFIC RAILROAD COMPANY

D-1

Today the Supreme Court of Texas denied the petition for review in the above-referenced case.

MAIL TO: MR. RICHARD P. KINNAN
ENGSTROM LIPSCOMB & LACK
10100 SANTA MONICA BOULEVARD
LOS ANGELES CA 90067

APPENDIX E

45 U.S.C.A. § 51

§ 51. Liability of common carriers by railroad, in interstate or foreign commerce, for injuries to employees from negligence; employee defined:

Every common carrier by railroad while engaging in commerce between any of the several States or Territories, or between any of the States and Territories, or between the District of Columbia and any of the States or Territories, or between the District of Columbia or any of the States or Territories and any foreign nation or nations, shall be liable in damages to any person suffering injury while he is employed by such carrier in such commerce, or, in case of the death of such employee, to his or her personal representative, for the benefit of the surviving widow or husband and children of such employee; and, if none, then of such employee's parents; and, if none, then of the next of kin dependent upon such employee, for such injury or death resulting in whole or in part from the negligence of any of the officers, agents, or employees of such carrier, or by reason of any defect or insufficiency, due to its negligence, in its cars, engines, appliances, machinery, track, roadbed, works, boats, wharves, or other equipment.

Any employee of a carrier, any part of whose duties as such employee shall be the furtherance of interstate or foreign commerce; or shall, in any way directly or closely and substantially, affect such commerce as above set forth shall, for the purposes of this chapter, be considered as being employed by

such carrier in such commerce and shall be considered as entitled to the benefits of this chapter.

APPENDIX F

F-1

NO. 2000-38068

IN THE DISTRICT COURT OF
HARRIS COUNTY, TEXAS
295TH JUDICIAL DISTRICT

CLARENCE ABRAHAM, et al.

v.

UNION PACIFIC RAILROAD COMPANY

ORDER GRANTING MOTION FOR SUMMARY JUDGMENT

After considering and hearing Union Pacific Railroad Company's Motion for Summary Judgment on Medical Causation as to all Plaintiffs and Intervenors, this Court, deems that the motion is meritorious and having considered the motion, the response, and all of the credible and proper evidence presented, and arguments of counsel, finds that the Motion should be granted in its entirety.

IT IS THEREFORE ORDERED that all claims asserted by all Plaintiffs and Intervenors are DISMISSED WITH PREJUDICE.

SIGNED this the 7th day of April, 2006.

/s/ TRACY CHRISTOPHER
HONORABLE JUDGE PRESIDING